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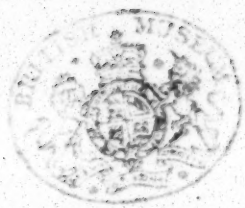
MASTER OF THE ACADEMY, EDINBURGH; AUTHOR OF THE ROYAL STANDARD ENGLISH DICTIONARY, THE ONLY SURE GUIDE TO THE ENGLISH TONGUE, THE ORATOR, &c.

THE THIRD EDITION WITH IMPROVEMENTS.

EDINBURGH:
Printed for the AUTHOR; and ſold by J. WILKIE, and T. EVANS, *London*; C. ELLIOT, W. CREECH, and R. JAMESON, *Edinburgh*; CHARNLEY, *Newcaſtle*; TESSEYMAN, *York*; and by the AUTHOR.

M DCC LXXVII.

Price, bound, ſix Shillings.



TO

WILLIAM M'DOWALL, Eſq;

OF

CASTLE SEMPLE.

SIR,

IF the propenſity you have always ſhewn to promote every kind of uſeful Learning, and the eagerneſs with which you cheriſh even the leaſt ſpark of merit, were not motives ſufficient to kindle in me a Deſire of putting the following Sheets under your patronage, I ſhould be further prompted to it from a deep ſenſe of the favours conferred on me, with reſpect to my Profeſſion.

IN the great Aſſembly of the Nation, to which you have often been worthily called, you muſt have experienced, with what Advantage the Calculiſt and Accomptant are always heard. No wonder, ſince Arguments, drawn from Arithmetical Computations carry with them uncommon Weight, having their foundation in Reaſon and Truth.

THIS

THIS Circumſtance made me the more ambitious of preſenting you with this work: It has alſo ſome further claim to your protection, not only as it is a ſmall Teſtimony of my Gratitude and Eſteem, but as it may hereafter be of Service to your Son, whoſe Education I have the honour ſolely to ſuperintend.

I am, Sir,

Your moſt obliged,

and moſt obedient,

humble ſervant,

WILLIAM PERRY.

Academy, *Edinburgh, Jan.* 22. 1777.

PREFACE.

THE very great Encouragement the former Editions of this Work met with from the impartial Public, has induced the Author to enlarge and improve his Plan, by inſerting all the Rules of Arithmetic, which before, were confined to ſuch only as were more immediately applicable to, and connected with Buſineſs:—ſo that in this new Edition, about twenty Rules, which were not in the former, are now very largely and explicitly handled, particularly the Rules of Intereſt, Annuities, &c.

IN the complete ſyſtem of *Common Book-Keeping*, digeſted upon the plan of real Buſineſs, my principal aim has been to inculcate a thorough Knowledge of the moſt valuable part of that ſcience, *viz.* that of drawing out, and negotiating of Bills of Exchange, Promiſſory Notes, Receipts, Bills of Parcels, Bills on Book Debts, Accompts current, *&c.*; of which there are a multitude of Examples deduced from the Work itſelf, and explained in ſo clear a manner, as cannot fail to be of the utmoſt utility to Youth who are deſigned for Buſineſs, to thoſe perſons already engaged therein, and to the generality of Mankind.

IT is notorious, that all Arts and Sciences, Trade and Commerce, do abſolutely depend upon Arithmetic; and therefore, to further its Perfection, and facilitate its Progreſs to Youth, is as laudable in the Attempt, as it will be uſeful in the End.

EXPERIENCE has convinced me, that the common queſtions of Arithmetic given to Youth at Schools, are inſufficient to qualify them for entering into Commerce. That I might aſſiſt them in this uſeful and indiſpenſible branch of their ſtudies, I have omitted to ſet down the amount of each line in the Waſte-book of the Common Book-keeping, which affords them a Variety of Examples pertaining to Trade: and, in order to remove every Difficulty in performing them, I have placed References in the Margin, ſhewing by what Rule, and under what Caſe, they may be wrought moſt expeditiouſly.

The Treatiſe of Book-keeping by Double Entry is conſiderably enlarged: for, excluſive of the Courſe contained in the firſt Edition, I have added another to this, by opening a new ſet of books, which exhibit a Variety of Partnerſhip and other Accompts.—And beſides many uſeful and inſtructive Notes interſperſed under the entries in the *Waſte-Book*, ſhewing how to journalize; and in the Journal, how to poſt into the Ledger; I have collected a ſet of *general* Rules for applying the Terms Dr. and Cr. and alſo *particular* ones for thoſe of Company or Partnerſhip accompts, which are placed immediately after the ſecond courſe of Book-Keeping.

Laſtly; To render this Work as uſeful as poſſible to the generality of Mankind, and eſpecially to *Perſons in Trade*, I have added a complete ſet of Precedents or Forms of Writings, *peculiar* to England and Scotland, and ſuch as are *common* to both; and I have concluded by inſerting uſeful Queſtions relating to various forms of Acquittances; which, as they occur daily, render a perfect Acquaintance with them indiſpenſibly neceſſary for the *Man* of *Buſineſs*.

EDINR. *7th October*, 1777.

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BRITISH MUSEUM 30 OCT 4

PART I.

Of ARITHMETIC.

ARITHMETIC is the art of reckoning or accompting by numbers, and is compriſed in the five following fundamental rules, *viz.* Numeration, Addition, Subtraction, Multiplication and Diviſion.

Of NUMERATION.

NUMERATION, or *Notation*, teaches to read or write down any ſum or number, by theſe ten characters, 1, 2, 3, 4, 5, 6, 7, 8, 9, 0; every one of which, except the cypher, hath different values, according to the place it ſtands in, as may be ſeen by the following

TABLE.

123,987,654,321	Hundreds of thouſands of millions.
23,987,654,321	Tens of thouſands of millions.
3,987,654,321	Thouſands of millions.
987,654,321	Hundreds of millions.
87,654,321	Tens of millions.
7,654,321	Millions.
654,321	Hundreds of thouſands.
54,321	Tens of thouſands.
4,321	Thouſands.
321	Hundreds.
21	Tens.
1	Units.

EXAMPLES.

Write down in proper figures the following numbers, viz.

Seventeen.—Seventy-one.—Seven hundred and seven.—Three thouſand and nineteen.—Seventy thouſand and fourteen.—Twenty-eight thouſand, three hundred and one.—Eight hundred thouſand, four hundred and fourteen—Nine millions, one hundred thouſand and ſixteen.—Sixty-three millions, four hundred and twenty-three thouſand, nine hundred and eighty-one.—Four hundred and thirty-ſix millions, five hundred and forty-two thouſand, eight hundred and ſixty-eight.

Write down in words at length the following numbers, &c.

8.—14.—70.—106.—3418.—28463.—814709.—3600321.——23521716.—318914726.

A leſs literal number placed after a greater, always augments its value; if put before, it commonly diminiſhes it.

The chief Roman numbers are, I, 1. V, 5. X, 10. L, 50. C, 100. D or IↃ, 500. M or CIↃ, 1000. IↃↃ, is 5000. IↃↃↃ, is 50000. and tenfold when repeated.

A line drawn over any number leſs than a thouſand, intimates ſo many thouſands; $\overline{\text{LX}}$, is 60,000. $\overline{\text{C}}$, 100,000. and $\overline{\text{M}}$ a million.

Decypher the following numbers, and find their ſum.

IV, VII, IX, VIII, IIX, XIII, XXII, XXIV, XXV, XXIX, XXXIV, XLV, LXXXII, XCVI, CXCIV, CDXI, DC, DCCLV, MCLIV, MDCCLXXII, IↃↃ, $\overline{\text{M}}$CM, IↃCCLXXVI.

Anſwer, 1011968.

Of ADDITION.

ADDITION teaches to bring two or more numbers into one total ſum; and is of two ſorts, *Simple* and *Compound*.

Of SIMPLE ADDITION.

SIMPLE ADDITION is the adding of ſeveral whole numbers together, which are all of one kind or ſort; as, 5 pounds, 11 pounds, and 8 pounds, being added together, their aggregate, or ſum-total, is 24 pounds.

RULE.

RULE. Having placed units under units, tens under tens, &c. draw a line underneath, and begin with the units; and after adding up every figure in the units row, conſider how many tens are contained in their ſum, and placing, the exceſs under the units, carry the tens to the next row of tens; proceed in the ſame manner through every line, and remember to ſet down the whole amount of the laſt row.

To prove Addition, Begin at the top of your ſum, and reckon the figures downwards, in the ſame manner they were added upwards; and if this ſum total be equal to the firſt, it is right: or cut off the uppermoſt line of figures in your queſtion, and find the ſum of all the reſt; then add this amount to the line cut off; and if it be equal to the ſum total, your work is right.

EXAMPLES.

l.	*yds.*	*gals.*	*tons.*	*hhds.*	*lb.*	*qrs.*
5	28	94	814	726	4182	4181
4	31	8	783	325	7395	7294
9	47	75	52	972	3284	2836
3	30	6	900	836	717	9484
2	83	52	83	283	3008	7631
—	—	—	—	—	—	—
—	—	—	—	—	—	—

clls.	*miles.*	*acres.*	*minutes.*	*days.*
712814	418729	32178	17418	30872
—	—	—	—	—
908726	714238	42839	83275	94263
428375	827173	74283	93816	85329
968132	517307	31007	87239	73106
301475	826048	24158	61837	92837
728375	159371	83719	42631	28014
237189	739637	72864	52108	73612
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—

Of COMPOUND ADDITION.

COMPOUND ADDITION is the adding of ſeveral numbers together, having different denominations; as, pounds, ſhillings and pence; yards, quarters and nails, &c.

1. *Of* MONEY.

Note

4 farthings, or *qrs.*	make one	penny, marked thus, *d.*
12 pence		shillings, *s.*
20 shillings		pound, *l.*

PORTUGAL MONEY.

	Value. *l.*	*s.*	*d.*	Weight. *oz.*	*dwt.*	*gr.*
One piece -	=3	12	0	—0	18	12
A thirty-six shilling piece	=1	16	0	—0	9	6
A half ditto	=0	18	0	—0	4	15
Quarter do.	=0	9	0	—0	2	7½
An Eighth d.	=0	4	6	—0	1	3¾
A moidore -	=1	7	0	—0	6	22
A half ditto	=0	13	6	—0	3	11
Quarter do.	=0	6	9	—0	1	17½
An Eighth d.	=0	3	4½	—0	0	20¾

ENGLISH MONEY.

	Value. *l.*	*s.*	*d.*	Weight. *oz.*	*dwt.*	*gr.**
A guinea -	=1	1	0	—0	5	9
A half ditto	=0	10	6	—0	2	16¼
Quarter do.	=0	5	3	—0	1	8¼
A crown -	=0	5	0			
A half ditto	=0	2	6			

Obsolete, or Imaginary Coins.

A Carolus -	=1	3	0
A Jacobus -	=1	5	0
A mark -	=0	13	4
An angel -	=0	10	0
A noble -	=0	6	8

*Each grain of gold is 2 d. and each pennyweight 4 s. at 4 l. per ounce.

Before you proceed any further, it will be necessary to learn by heart the following Tables.

d.	*s.*	*d.*
20=	1	8
30=	2	6
40=	3	4
50=	4	2
60=	5	0
70=	5	10
80=	6	8
90=	7	6
100=	8	4
110=	9	2
120=	10	0
130=	10	10
140=	11	8
150=	12	6

s.	*d.*
2=	24
3=	36
4=	48
5=	60
6=	72
7=	84
8=	96
9=	108
10=	120
11=	132
12=	144
13=	156
14=	168
15=	180

s.	*l.*	*s.*
20=	1	0
30=	1	10
40=	2	0
50=	2	10
60=	3	0
70=	3	10
80=	4	0
90=	4	10
100=	5	0
120=	6	0
140=	7	0
160=	8	0
180=	9	0
200=	10	0

Note, a farthing is written thus, ¼;—a halfpenny thus, ½;—three farthings thus, ¾.

EXAMPLES.

EXAMPLES.

10	20	12	10	20	12	4	10	20	12	4	10	20	12
l.	*s.*	*d.*	*l.*	*s.*	*d.*	*qrs.*	*l.*	*s.*	*d.*	*qrs.*	*l.*	*s.*	*d.*
3	18	10	8	19	6	½	25	14	6	¼	34	19	10
7	14	6	5	17	10	¾	8	12	0	½	28	14	6
8	9	11	8	5	6	¼	19	19	10	¾	32	7	4
2	17	0	3	18	11	½	12	12	0		84	19	0

10	20	12	10	20	12	4	10	20	12	4	10	20	12
l.	*s.*	*d.*	*l.*	*s.*	*d.*	*qrs.*	*l.*	*s.*	*d.*	*qrs.*	*l.*	*s.*	*d.*
8	14	10	32	14	11	¼	17	17	0	½	6	19	0
7	19	6	28	0	0		32	18	6	¼	7	14	6
8	12	0	36	19	2	½	84	6	10	½	8	8	0
5	17	3	84	8	8	¾	92	19	8	¾	1	1	10
4	10	11	19	19	1		17	0	6	¼	3	13	6
7	16	6	38	12	6	¾	38	16	10	¾	27	7	11

A CATALOGUE *of* USEFUL THINGS, *or* MEMORANDUMS *neceſſary to be known and remembered on ſeveral occaſions by all perſons in buſineſs.*

A ream of paper, 20 quires.
A quire of paper, 24 or 25 ſheets.
A bale of paper, 10 reams.
A roll of parchment or vellum, 5 dozen, or 60 ſkins.
A dicker of hides, 10 ſkins.
Ditto of gloves, 10 dozen pair.
A laſt of hides, 20 dickers.
A load of timber unhewed, 40 feet.
A chaldron of coals, 36 buſhels.
A hogſhead of wine, 63 gallons.
Ditto of beer, 54 gallons.
A barrel of beer, 36 gallons.
Ditto of ale, 32 gallons.
A weigh of cheeſe, 236 lb.
The great hundred, 112 lb.
Pence in a pound, 240.—Farthings, 960.
8 pints, dry or liquid meaſure, a gallon.
8 gallons, a buſhel of corn.
A todd of wool is 28 lb.
A pack of ditto, 364 lb.
5½ yards, a pole.
40 poles in length, a furlong.
8 furlongs in length, a mile.
1760 yards, a mile.
144 ſquare inches, a foot.
9 ſquare feet, a yard.
40 ſquare poles, a rood,
4 ſquare roods, an acre.
4840 ſquare yards, an acre.
640 ſquare acres, a mile.
1728 ſolid inches, a foot.
27 ſolid feet, a yard.
48 ſolid feet of timber, a ton.
231 ſolid inches, a wine gallon.

282 ditto, a beer or ale gallon.
8 buſhels of corn, a quarter.
A laſt of corn or rape-ſeed, 10 quarters, or 80 buſhels.
Ditto of pot-aſhes, cod-fiſh, white herrings, meal, pitch and tar, 12 barrels.
Do. of flax and feathers, 17 cwt.
Ditto of gun-powder, 24 barrels, or 2400 lb.
Ditto of wool, 4368 lb.
An ell Flemiſh, 27 inches.
An ell Engliſh, 45 inches.
A ton of wine, 250 gallons.
Ditto of Greenland oil, 252 do.
A ton in weight, 20 cwt. of iron, &c.
A fother or fodder of lead, 19½ cwt. which is 2184 lb.
A quintal or kintal, 1 cwt.
A load of bricks, 500
Ditto of plain tiles, 1000.
A ſtone of fiſh, 8 lb.
A ſtone of iron, ſhot, or horſeman's weight, 14 lb.
Ditto of glaſs, 5 lb.
A ſeam of glaſs, 24 ſtone.
A cade of red herrings, 500.
Ditto of ſprats, 1000.
12 particular things make 1 dozen.
12 dozen, 1 groſs.
12 groſs, or 144 dozen, 1 great groſs.

BARRELS *of ſundry* COMMODITIES.

Eſſex butter, 106 lb.
Suſſex ditto, 256 lb.
Anchovies, 30 lb.
A double barrel, 60 lb.
Nuts or apples, 3 buſhels.
Pot-aſhes, 200 lb.
Oil, 31½ gallons.
Candles, 10 dozen lb.
Raiſins, 1 cwt.
Spaniſh tobacco, 2 cwt. to 3 cwt.
Gun-powder, 1 cwt.
Soap, 256 lb.
Herrings, 32 gallons, about 100 herrings.
Eels and ſalmon, ditto.
Figs, 3 qrs. 14 lb. to 2¼ cwt.

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2. *Of* AVOIRDUPOIS WEIGHT.

Note,

16 drams, or *dr.*	make one	ounce, *oz.*
16 ounces,		pound, *lb.*
28 pounds		quarter of a hundred weight, *qr.*
4 quarters		hundred weight, or 112 pounds, *C.*
20 hundred wt.		ton, *T.*

By this weight are weighed all coarſe and droſſy goods, grocery and chandlery wares, and all metals, except gold and ſilver.

The pound avoirdupois is equal to 14 *oz.* 11 *dwt.* 15½ *gr.* troy; and the pound troy, is equal to 13 *oz.* 2½ *dr.* $\frac{2322}{13999}$ avoirdupois.

Ex-

EXAMPLES.

1				2			4			4		
10	20	4	28	20	4	28	10	16	16	10	16	16
T.	*C.*	*qr.*	*lb.*	*C.*	*qr.*	*lb.*	*lb.*	*oz.*	*dr.*	*lb.*	*oz.*	*dr.*
9	11	1	23	12	1	14	11	10	12	3	11	0
3	17	0	10	8	2	15	8	14	15	9	14	12
7	0	3	27	9	3	7	9	7	0	6	6	6
5	18	2	14	15	1	18	8	15	6	9	12	3
3	12	3	21	12	0	0	7	6	1	4	11	15
1	11	1	18	18	3	22	6	12	18	9	10	10

N. B. The examples in all the weights and measures may be easily performed, by beginning at the lowest denomination, and making a point or dot when you have added as many of that name as make one of the next greater. The number of dots will shew how many must be carried to the next superior denomination: The overplus, if any, must be placed underneath its proper line, and then proceed as before.

A CORRECT TARLE, *shewing the* PROPORTION *of the* WEIGHTS *of the* PRINCIPAL PLACES *of* EUROPE.

The 100 *lb.* of England, Scotland, and Ireland, are equal to

lb.	*oz.*		*lb.*	*oz.*	
91	8	of Amsterdam, Paris, *&c.*	96	1	of Leipsic.
96	8	of Antwerp, or Brabant	137	4	of Genoa.
88	0	of Rouen, the Viscounty weight.	132	11	of Leghorn.
			153	11	of Milan.
106	0	of Lyons, the city weight.	152	0	of Venice.
90	9	of Rochelle.	154	10	of Naples,
107	11	of Toulouse and Upper Languedoc.	97	0	of Seville, Cadiz, *&c.*
			104	13	of Portugal.
113	0	of Marseilles or Provence.	96	5	of Liege.
81	7	of Geneva.	112	$0\frac{2}{3}$	of Russia.
93	5	of Hamburgh.	107	$0\frac{1}{24}$	of Sweden.
89	7	of Francfort.	89	$0\frac{1}{2}$	of Denmark.

3. *Of*

3. *of* TROY WEIGHT.

Note,

24 grains, or *gr.*	make one	penny-weight, *dwt.*
20 penny-weights		ounce, *oz.*
12 ounces		pound, *lb.*

N. B. Gold, ſilver, jewels, electuaries, and all liquors, are weighed by this weight,

22 carats of fine gold, and 2 carrats of copper, being melted together, are eſteemed the true ſtandard for gold coin; and 11 *oz.* 2 *dwt.* of fine ſilver, and 18 *dwt.* of copper melted together, make the true ſtandard for ſilver coin, called ſilver Sterling.—*Note,* A carat is the twenty-fourth part of any quantity or weight.—Bread, and corn, are alſo weighed by this weight:—Every thing elſe by avoirdupois weight.

TROY WEIGHT *compared with* AVOIRDUPOIS WEIGHT.

175 troy pounds are equal to 144 avoirdupois pounds.
175 troy ounces are equal to 192 avoirdupois ounces.
1 troy pound contains 5760 grains. And
1 avoirdupois pound contains 7000 grains.
1 troy ounce contains 480 grains. And
1 avoirdupois ounce contains 437½ grains.
1 avoirdupois dram contains 27,34375 grains.

EXAMPLES.

lb.	*oz.*	*dwt.*	*gr.*
12	11	19	16
3	10	7	22
17	7	6	18
32	11	18	23
16	10	0	0
24	6	17	12
9	9	19	22

oz.	*dwt.*	*gr.*
2	12	14
9	17	8
7	11	22
5	7	9
6	13	12
8	14	10
4	12	21

oz.	*dwt.*	*gr.*
3	12	17
7	13	6
5	15	0
9	17	12
7	14	23
6	12	12
2	10	19

lb.	*oz.*	*dwt.*	*gr.*
7	10	19	22
8	11	6	20
3	1	14	6
5	6	16	12
3	11	18	14
9	10	13	23
6	7	12	15

4. *Of* APOTHECARIES WEIGHT.

20 grains, or *gr.*	make one	ſcruple, ℈.
3 ſcruples		dram, ʒ.
8 drams		ounce, ℥.
12 ounces		pound, lb.

N. B. Apothecaries compound their medicines by this weight, yet they buy and ſell their commodities by avoirdupois weight. *Their* pound and ounce, and the pound and ounce *Troy* are the ſame, only differently divided and ſubdivided.

EXAMPLES.

lb	℥	ʒ	℈	*gr.*
10	12	8	3	20
22	11	7	2	19
8	6	5	1	17
14	10	3	0	14
22	7	4	0	12
15	2	2	2	6

lb	℥	ʒ	℈	*gr.*
10	12	8	3	20
14	6	1	2	16
27	11	7	1	19
16	8	5	0	12
22	10	4	2	17
10	11	6	1	18

lb	℥	ʒ	℈	*gr.*
10	12	8	3	20
1	16	1	1	6
7	6	2	2	19
3	11	7	1	10
9	7	3	1	18
4	11	0	2	17

5. *Of* WOOL WEIGHT.

Note,

7 pounds, *lb.*	make one	clove.
2 cloves, or 14 lb.		ſtone.
2 ſtones, or 28 lb.		todd.
6½ todds, or 182 lb.		wey.
2 weys, or 364 lb.		ſack.
12 ſacks, or 4368 lb.		laſt.
340 pounds.		pack of wool.

Examples are unneceſſary.

6. *Of* CLOTH MEASURE.

Note

2¼ inches, *in.*	make one	nail, *na.*
4 nails, or nine inches		quarter of a yard, *qr.*
4 quarters of a yard, or 36 inches		yard, *yd.*
3 quarters of a yard, or 27 inches		ell Flemiſh, *E. Fl.*
5 quarters of a yard, or 45 inches		ell Engliſh, *E.*
6 quarters of a yard, or 54 inches		ell French, *E Fr.*
4 quarters 1⅕ inch, or 37⅕ inches		ell Scotch, *E Scot.*

N. B. All Scotch and Iriſh linens are bought and ſold by the yard Engliſh; but all Dutch linens are bought by the ell Flemiſh, and ſold by the ell Engliſh.

*** The Scotch allow 1 yard Engliſh into every ſcore yards.

EXAMPLES.

10 yds.	4 qr.	4 na.	10 ells.	5 qr..	4 na.	10 EFl.	3 qr.	4 na.	10 EFr.	6 qr.	4 na.
21	1	1	7	3	2	21	1	2	16	5	3
28	2	4	3	4	1	36	2	3	27	3	1
17	3	1	9	1	3	19	1	1	16	4	2
15	0	2	6	2	0	16	2	0	28	0	1
27	2	0	5	3	3	17	0	3	91	2	3
16	3	3	8	0	2	82	2	2	88	1	0

7. *Of* LONG MEASURE.

Note,

	make one	
3 barley corns, *b. c.*		inch, *In.*
4 inches		hand, *Hd.*
12 inches		foot, *Ft.*
3 feet		yard, *Yd.*
3 feet 9 inches		ell Engliſh, *Ell E.*
5 feet		geometrical pace, *P.*
6 feet		fathom, *F.*
5½ yards		rod, pole or perch, *Po.*
4 poles		Gunters chain.
40 poles, or 220 yards		furlong, *Fu.*
8 furlongs, or 1760 yards		mile, *M.*
3 miles		league, *L.*
60 miles		geometrical degree, *D.*

N. B. Though 60 miles are commonly accounted a degree, yet it contains nearly 69½ miles.—The uſe of this meaſure is to meaſure the diſtance of places, or any other thing where length is conſidered, without any regard to breadth.

Note alſo, That for fens and wood lands, it is cuſtomary to reckon 18 feet to the pole; and for foreſt 21; altho 5½ yards is the ſtatute meaſure for a pole:

Ex.

EXAMPLES.

10 8 40	10 3 8 40	10 3 12	10 8 40
M. f. p.	Le. m. f. p.	Yds. ft. in.	M. f. p.
3 3 27	8 2 5 30	7 2 9	12 3 28
4 7 16	5 1 7 39	3 1 7	11 7 19
9 3 36	6 0 2 22	2 0 6	23 2 22
7 6 0	8 2 4 6	3 2 5	16 6 16
5 3 28	7 1 3 11	9 1 4	19 2 26

N B. The Engliſh foot being divided into 1000 parts, or into 12 inches, the other feet will be as follow:

	1000 parts.	feet.	inches.	lines.
London	1000	0	12	0
Amſterdam	942	0	11	3
Antwerp	946	0	11	4
Bologna	1204	1	2	4
Bremen	964	0	11	6
Cologne	954	0	11	4
Copenhagen	965	0	11	6
Dantzick	944	0	11	3
Dort	1184	1	2	2
Frankfort on the Main	948	0	11	4
The Greek	1007	1	0	1
Lorrain	958	0	11	5
Mantua	1569	1	6	8
Mecklin	919	0	11	0
Middleburgh	991	0	11	9
Paris Royal	1068	1	0	9
Prague	1026	1	0	3
Rhineland or Leyden	1033	1	0	4
Riga	1831	1	9	9
Roman	967	0	11	6
Old Roman	970	0	11	8
Scotch	1005	1	0	5/7
Straſburgh	920	0	11	0
Toledo	899	0	10	7
Turin	1062	1	0	7
Venice	1162	1	1	9

A TABLE *of the* MEASURES *of* LENGTH *of the principal Places in* Europe, *compared with the* Engliſh *Yard.*

	yards
100 aunes or ells of England equal to – –	125
100——of Holland or Amſterdam, Haerlem, Leyden, the Hague, Rotterdam, Nuremberg, and other cities of Holland – –	75
100——of Brabant or Antwerp – –	76
100——of France, Oſnaburg – –	128¼
100——of Hamburgh, Francfort, Leipſic, Bern and Baſil	62½
100——of Breſlau – – –	60
100——of Dantzick – – – –	66¾
100——of Bergen and Drontheim – –	68¼
100——of Sweden of Stockholm – –	65¾
100——of St. Gall, for linens – –	87½
100——of ditto, for cloths – – –	67
100——of Geneva – – –	124¾
100 canes of Marſeilles, Montpelier – –	214½
100——of Toulouſe and High Languedoc –	200
100—— of Genoa, of nine palms – –	245¼
100——of Rome – – – –	227¼
100 varas of Spain – – –	93¾
100—— of Portugal – – –	123
100 cavidos of Portugal – –	75
100 braſſes of Venice – – –	73½
100——of Bergamo, *&c.* – – –	71¼
100——of Florence and Leghorn – –	64
100——of Milan – –	58¼

8 *Of* LAND *or* SQUARE MEASURE

Note,

144 ſquare inches, *In.*	make one	ſquare foot.
9 ſquare feet, *Ft.*		——yard, *yd.*
30¼ ſquare yards.		——pole, *Po.*
40 ſquare yards		——rood, *R.*
4 ſquare roods, or 160 poles in length, and one in breadth		——acre, *A.*
4840 ſquare yards		——acre.
640 ſquare acres		——mile, *M.*
10 chains in length, and 1 in breadth		acre.

N. B. The content of any piece of land is found by this meaſure.

Ex-

EXAMPLES.

10 4 40	10 4 40	10 4 40	10 4 40
A. r. p.	*A. r. p.*	*A. r. p.*	*A. r. p.*
12 1 17	21 3 22	18 2 18	9 3 16
23 2 19	16 2 15	14 2 28	5 1 21
16 3 31	28 0 0	15 3 0	7 2 12
32 0 12	17 3 30	19 2 12	8 1 33
17 2 10	19 1 17	23 0 0	2 3 0

9. *Of* WINE MEASURE.

Note,

$28\frac{7}{8}$	cubic or ſolid inches		pint, *pt.*
231	cubic or ſolid inches		gallon, *gal.*
2	pints, or *pts.*		quart, *qt.*
4	quarts		gallon.
10	gallons	make one	anker of rum or brandy, *A.*
18	gallons		rundlet, *R.*
$31\frac{1}{2}$	gallons		barrel, *Bar.*
42	gallons		tierce, *Ti.*
63	gallons		hogſhead, *Hhd.*
84	gallons		puncheon, *Pu.*
2	hogſheads		pipe or butt, *P.*
2	pipes, or 252 gallons		tun, *T.*

N. B. By this meaſure, brandy, ſpirits, perry, cyder, vinegar, mead, honey, oil and milk are meaſured.

EXAMPLES.

10 4 63 4	10 63 4	10 42 4
T. hhds. gal. qts.	*hhds. gal. qts.*	*Tier. gal qts.*
3 1 28 2	3 42 3	1 17 2
2 3 50 3	4 18 2	2 28 1
1 2 32 1	2 28 1	3 16 2
5 0 16 1	2 10 2	1 39 1
4 1 42 2	4 32 1	4 19 3

10. *Of* WINCHESTER MEASURE.

Note,

282 solid or cubic inches	make one	gallon of beer or ale, *gal.*
2 pints, or *pts.*		quart, *qt.*
4 quarts		gallon.
8 gallons		firkin of ale, *Fir.* in London.
8½ gallons		firkin of ale or beer.
9 gallons		firkin of beer in London.
2 firkins		kilderkin, *Kil.*
4 firkins		barrel, *Bar.*
1½ barrel, or 54 gallons		hogshead of beer, *Hhd.*

N. B. A Winchester bushel is the standard for dry measure, being 10½ inches wide throughout, and eight inches deep.

One gallon contains 286⅘ solid inches.

EXAMPLES.

10 54 4	10 4 9	10 54 4	10 4 8
Hhds. gal. qts.	*B. B. fir. gal.*	*Hhds. gal. qts.*	*A. B. fir. gal.*
3 12 3	12 3 8	7 42 2	10 1 3
1 23 2	10 1 7	2 10 1	9 3 7
3 16 1	11 2 1	4 11 3	4 1 3
9 22 0	19 0 2	5 19 2	6 0 6
7 41 1	17 2 4	6 23 1	3 2 4
2 17 3	14 1 2	2 32 2	2 2 5
5 8 0	16 3 6	3 14 3	18 1 2

11. *Of* DRY MEASURE.

Note,

33⅗ cubic inches	make one	pint, *pt.*
2 pints, *pts.*		quart, *qt.*
2 quarts		pottle, *Pot.*
2 pottles, or 4 quarts		gallon, *Gal.*
2 gallons		peck, *P.*
4 4 pecks		bushel, *Bush.*
8 bushels		quarter of corn.
36 bushels		chaldron of coals in London, *Ch.*

5 pecks

5 pecks,	make	a buſhel of water meaſure.
4 buſhels,		a coom.
10 cooms,		a wey.
12 weys,		a laſt of corn.
A ſcore of coals,		21 chaldrons.
A ſack of coals,		3 buſhels.

In all other places, except London, 32 buſhels make a chaldron.

We apply this meaſure to all dry goods; as, corn, ſeeds, fruit, roots, ſalt, ſand, oyſters, cockles, muſcles and coals

EXAMPLES.

Ch	*bu.*	*p.*	*Qrs.*	*bu.*	*p.*	*Ch.*	*bu.*	*p.*	*Qrs.*	*bu.*	*p.*
10	36	4	10	8	4	10	36	4	10	8	4
18	18	3	15	7	3	8	13	2	15	2	1
28	10	2	23	3	1	9	22	1	71	6	3
56	22	1	17	2	0	7	18	3	32	5	1
18	11	1	83	5	2	6	31	2	74	3	1
36	19	3	92	7	2	8	14	0	75	7	2
24	32	2	46	2	2	3	17	2	16	3	2

12. *Of* TIME.

Note,

60 ſeconds, or *ſec.*	make one	minute, *Min.*
60 minutes		hour, *Hr.*
24 hours		day, *Da.*
7 days		week, *Wk.*
4 weeks		month, *Mo.*
13 months, 1 day, and 6 hours		common or Julian year.

A ſolar year according to the niceſt calculation is 365 days, 5 hours, 48 minutes, and 55 ſeconds: But by the calendar, it is divided in the following manner:

Thirty days hath September, April, June, and November:
February hath 28 *alone, and all the reſt have thirty-one.*

Note, When you can divide the year of our Lord by 4, without having any remainder, it is then called *Biſſextile* or *leap*-year, in which February hath 29 days.

EXAMPLE

EXAMPLES.

10 4 7 Mo. w. d.	10 60 60 H. min. sec.	10 4 7 Mo. w. d.	10 24 60 D. ho. min.
9 2 3	9 17 32	6 3 6	4 22 40
12 3 3	8 41 58	3 1 4	3 17 52
17 1 2	9 18 21	1 2 5	5 10 19
25 3 6	7 22 14	4 3 4	6 14 18
11 2 3	6 13 25	2 1 3	5 21 32
18 1 4	8 53 40	5 2 4	1 16 18

13. *Of* MOTION.

Note,

60 seconds, or "	make	1 prime minute, '.
60 minutes		1 degree, °.
30 degrees		1 ſign.
12 ſigns, or 360 degrees		the whole great circle of the Zodiac.

EXAMPLES.

° ' "	° ' "	° ' "
12 32 19	14 12 51	9 31 59
51 12 16	38 14 27	8 15 28
17 41 28	12 56 18	5 28 16
23 14 37	29 28 31	8 14 22
15 45 16	41 31 16	9 37 19
62 17 38	27 16 29	3 12 6

Of SUBTRACTION.

SUBTRACTION teaches to take a leſs number from a greater; and ſhews the exceſs or difference between both. It is of two ſorts, *Simple* and *Compound*.

Of SIMPLE SUBTRACTION.

SIMPLE SUBTRACTION teaches to find the difference between any two numbers that are of the ſame ſignification.

RULE

RULE. Place the largeſt number uppermoſt, and the leſs number underneath, in ſuch order, that units ſtand under units, tens under tens, *&c.* Then, drawing a line underneath, begin with the units, and ſubtract the lower from the upper figure, and ſet down the remainder: but if the lower figure be greater than the upper, borrow ten, and ſubtract it therefrom; to this difference add the upper figure; which ſum being ſet down, you muſt add one to the tens place of the lower line for that which you borrowed; and proceed in the ſame manner through the whole.

To prove ſubtraction, either ſimple or compound; add the remainder and the leſs line together, which ſum will be equal to the greater line, if the work be right: Or, ſubtract the remainder from the greater line, and the difference will be equal to the leſs line.

EXAMPLES.

	1.	2.	3.	4.	5.	6.
From	785	31896	2714	8325	61208	708326
Take	432	18078	1107	2809	27281	80709
Remains						
Proof						

I was actually born in the year of our Lord 1744, how old am I, this preſent year 1776?

How long is it ſince the Spaniſh invaſion which happened in 1588?

How much is *A*, who was born 1723, older than *B*, born in 1757?

Of COMPOUND SUBTRACTION.

COMPOUND SUBTRACTION teaches to know the difference or exceſs between any two ſums of divers denominations.

RULE. Place thoſe numbers under each other which are of the ſame denomination; the leſs being below the greater, begin with the leaſt denomination, and if it exceed that in the upper, you muſt borrow as many units as make one of the next greater; and then proceed as you were directed in Simple Subtraction, remembering always to add one to the next ſuperiour denomination towards the left hand, for that which you borrowed.

1. *Of* MONEY.

EXAMPLES.

	l.	*s.*	*d.*	*qr.*	*l.*	*s.*	*d.*	*qr.*	*l.*	*s.*	*d.*	*qr.*	*l.*	*s.*	*d.*
From	15	12	6	$\frac{1}{2}$	71	19	10	$\frac{1}{4}$	12	19	6	$\frac{1}{2}$	100	0	0
Take	12	18	4	$\frac{1}{4}$	16	10	11	$\frac{1}{2}$	8	12	8	$\frac{3}{4}$	25	5	6
Remains															
Proof															

	l.	*s.*	*d.*	*qr.*	*l.*	*s.*	*d.*	*qr.*	*l.*	*s.*	*d.*	*qr.*	*l.*	*s.*	*d.*	*qr.*
From	28	19	11	$\frac{1}{4}$	62	15	10	$\frac{1}{2}$	22	13	11	$\frac{1}{4}$	500	0	0	
Take	2	11	6	$\frac{1}{2}$	38	15	11		19	11	10	$\frac{1}{4}$	220	10	11	$\frac{1}{4}$
Remains																
Proof																

	l.	*s.*	*d.*		*l.*	*s.*	*d.*
Borrowed –	500	0	0	Lent – –	250	0	0
Paid at ſeveral times –	25	10	0	Received at ſeveral times –	16	15	0
	36	18	10		32	10	6
	14	13	6		17	8	3
	22	15	0		29	19	11
	100	0	0		53	3	6
	52	10	0		21	11	2
	9	9	10		8	8	8
	114	12	3		18	12	6
Paid in all –				Received in all			
Remains unpaid –				Remains due –			
Proof –				Proof –			

2. *Of* AVOIRDUPOIS WEIGHT.

	10 *T.*	20 *C.*	4 *qr.*	28 *lb.*	10 *C.*	4 *qr.*	28 *lb.*	10 *lb.*	16 *oz.*	16 *dr.*	10 *T.*	20 *C.*	4 *qr.*	28 *lb.*	16 *oz.*	16 *dr.*
From	19	12	1	13	12	2	23	18	12	10	112	15	3	19	14	11
Take	9	0	3	27	5	2	26	11	14	11	28	0	3	21	1	15
Remains																
Proof																

3. *Of*

3. *Of* TROY WEIGHT.

	lb.	12 *oz.*	20 *dwt.*	24 *gr.*		20 *oz.*	24 *dwt.*	*gr.*		20 *oz.*	24 *dwt.*	*gr.*	*lb.*	12 *oz.*	20 *dwt.*	24 *gr.*
From	110	10	14	21		12	11	10		8	14	20	141	11	13	12
Take	22	0	16	23		8	16	21		4	11	22	78	6	15	22
Remains																
Proof																

4. *Of* APOTHECARIES WEIGHT

	lb	12 ℥	8 ʒ	3 ℈	20 *gr.*		lb	12 ℥	8 ʒ	3 ℈	20 *gr.*		lb	12 ℥	8 ʒ	3 ℈	20 *gr.*
From	15	6	3	2	13		27	8	5	0	17		14	11	2	1	17
Take	11	11	5	0	18		19	10	6	2	13		7	0	5	2	29
Remans																	
Proof																	

5. *Of* WOOL WEIGHT.

	W.	13 *St.*	14 *lb.*		*W.*	13 *St.*	14 *lb.*		*W.*	13 *St.*	14 *lb.*		*W.*	13 *St.*	14 *lb.*
From	15	11	11		12	6	8		81	10	12		42	10	11
Take	8	12	13		8	0	12		12	6	12		16	0	6
Remains															
Proof															

6. *Of* CLOTH MEASURE.

	Yds.	4 *qr.*	4 *na.*		*Ells.*	5 *qr.*	4 *na.*		*E. Fl.*	3 *qr.*	4 *na.*		*E. Fr.*	6 *qr.*	4 *na.*
From	81	1	3		72	3	1		56	1	3		19	3	2
Take	19	3	1		28	4	3		16	0	1		6	5	3
Remains															
Proof															

7. *Of* LONG MEASURE.

	8 40 *M. f. p.*	3 8 40 *L. m. f. p.*	3 12 *Yds. f. in.*	8 40 *M. f. p.*
From	2 1 18	7 1 4 26	86 1 10	18 1 6
Take	0 4 39	2 2 2 29	18 2 11	8 7 10
Remains				
Proof				

8. *Of* LAND *or* SQUARE MEASURE.

	4 40 *A. r. p.*	4 40 *A. r. p.*	4 40 *A. r. p.*	4 40 *A. r. p.*
From	178 1 10	2000 2 0	150 1 18	28 3 6
Take	59 3 10	706 1 18	36 3 28	17 0 19
Remains				
proof				

9. *Of* WINE MEASURE.

	4 63 4 *T. Hhds. gal. qts.*	63 4 *Hhds. gal. qts.*	4 63 4 *T. Hhd. gal qts.*	63 4 *Hhds. gal. qts.*
From	5 1 15 2	13 18 0	3 0 18 2	2 33 2
Take	3 2 46 1	8 27 3	1 3 36 3	1 39 3
Remains				
Proof				

10. *Of* WINCHESTER MEASURE.

	54 4 *Hhds. gal. qts.*	4 9 *BB. fir. gal.*	54 4 *Hhd. gal. qts.*	4 8 *AB. fir. gal.*
From	33 18 2	12 0 3	18 27 2	18 2 3
Take	17 28 3	6 1 1	12 19 3	10 3 7
Remains				
Proof				

11. *Of* DRY MEASURE.

	36 4 *Ch. bu. p.*	8 4 *Qrs. bu. p.*	36 4 *Ch. bu. p.*	8 4 *Qrs. bu. p.*
From	108 13 2	200 6 2	500 15 2	208 5 3
Take	82 29 2	110 7 3	228 31 3	109 6 1
Remains				
Proof				

12. *Of* TIME.

	Mo.	4 w.	7 da.		60 Ho.	60 min.	60 sec.		Mo.	4 w.	7 d.		24 D.	60 ho.	60 min.
From	11	1	3		18	27	20		10	2	5		18	13	24
Take	8	3	5		11	39	42		5	2	6		11	21	57
Remains															
Proof															

13. *Of* MOTION.

	°	60 ′	60 ″		♀	60 ′	60 ″		°	60 ′	60 ″		°	60 ′	60 ″
From	15	14	27		35	28	42		58	12	48		127	13	42
Take	8	39	12		17	14	51		27	32	51		52	38	59
Remains															
Proof															

I ſent my ſervant to market with ten guineas, to buy goods: He bought from one merchant wares to the amount of 1 l. 17 s. 5¼ d.; to another merchant he paid three guineas and three quarters; his own expences amounted to 2 s. 7½ d.—Pray how much money did he return me?

ANSWER, 4 l. 11 s. 2¼.

A merchant failing, owed to *A* 517 l. 8 s. 9½ d. to *B*. 175 l. to *C* 107 l. 19 s. 11¾ d. to *D* 271 l. 16 s. 11 d. and to *E* 517 l. 10 s. 6½ d. His effects at that time were as under: In caſh 210 l. 11 s. 5½ d. in wares, 397 l. 17 s. 6½ d. in houſehold furniture, 187 l. 10 s. 9 d. and in book debts, 297 l. 10 s. 5¾ d.—Pray how much will his creditors loſe.

ANSWER, 496 l. 6 s.

Of MULTIPLICATION.

MULTIPLICATION is a compendious method of performing many additions, and conſiſts of three parts.

1. The Multiplicand, or number given to be multiplied.
2. The Multiplier, or number to multiply by.

3. The

3. The Product, which is the number arising from the multiplication.

Multiplication is of two sorts, *Simple* and *Compound*.

Of SIMPLE MULTIPLICATION.

SIMPLE Multiplication is the multiplying of any two numbers together, without having regard to their signification: as, 9 times 12 is 108.

Before you can proceed any farther, the following table must be perfectly gotten by heart.

TABLE OF PRODUCTS.

1	2	3	4	5	6	7	8	9	10	11	12
2	4	6	8	10	12	14	16	18	20	22	24
3	6	9	12	15	18	21	24	27	30	33	36
4	8	12	16	20	24	28	32	36	40	44	48
5	10	15	20	25	30	35	40	45	50	55	60
6	12	18	24	30	36	42	48	54	60	66	72
7	14	21	28	35	42	49	56	63	70	77	84
8	16	24	32	40	48	56	64	72	80	88	96
9	18	27	36	45	54	63	72	81	90	99	108
10	20	30	40	50	60	70	80	90	100	110	120
11	22	33	44	55	66	77	88	99	110	121	132
12	24	36	48	60	72	84	96	108	120	132	144

CASE I.

When the multiplier is not more than 12, place the greatest number uppermost; beneath which set the multiplier, units under units, *&c.* then begin as the table directs, setting down the unit figure, and carrying the tens to the next place, in all respects as in Simple Addition.

Ex.

EXAMPLES.

1	2	3	4	5
82756	908632	47183	80065	784926
3	4	5	6	7
6	7	7	8	9
714832	5210089	20715	61728	807543
8	9	11	12	2

CASE II.

When the multiplier conſiſts of more places than one, multiply each figure in the multiplicand by every figure in the multiplier, beginning with the units; and be ſure to place the firſt figure of every product exactly under its multiplier: Laſtly, add theſe ſeveral products together in the ſame order as they ſtand, and their ſum will be the total product.

EXAMPLES.

1	2	3	4
82753	31896	368291	827316
276	85	59	63
			2481948
			4963896
22839828	2711160	21729169	52120908

5	6	7
71839	271893	820695
675	354	938
48491325	96250122	769811910

CASE.

CASE III.

When the multiplier is a number produced by the multiplication of any two numbers in the table, the conciſeſt way will be, to multiply the multiplicand by one of thoſe figures firſt, and that product by the other; which laſt product will be the total required.

EXAMPLES.

1. Multiply 827316 by 63.

2. 5283 by 55.

3. and 8107 by 36.

4. Multiply 2834 by 72.

5. 1785 by 42.

6. and 37182 by 88.

CASE IV.

When there are cyphers on the right hand of either multiplicand or multiplier, or both, neglect thoſe cyphers; then place the ſignificant figures under one another, and multiply by them only; add them together as before directed, and place to their right hand as many cyphers as there are in both multiplicand and multiplier.

EXAMPLES.

1.	2.	3.
3750	31800	7065000
2800	620	8700
10500000	19716000	61465500000

4.	5.	6.
92830	721000	62700
3759	3190	26800
348112500	2299990000	1080360000

CASE V.

When there are cyphers between the ſignificant figures of the multiplier, you muſt omit multiplying by them, but take care to place the firſt figure of every product of the ſignificant figures exactly under that which you multiply by: Laſtly, add them together, and their ſum will be the total product.

EXAMPLES

EXAMPLES.

1.	2.	3.
3786	37980	891240
2009	3008	600090
34074		
7572		
7606074	114243840	534824211600

CASE VI.

To multiply by 10, 100, 1000, *&c.* you need but ſet down all the figures in the multiplicand, in the ſame order as they ſtand, and join the cyphers which are in your multiplier to the right hand of them.

EXAMPLES.

1.	2.	3.	4.
717837	72086	32528	51683
10	100	1000	10000
7178370			516830000

CASE VII.

To multiply by 99, 999, 9999, *&c.* in one line: place as many dots to the right hand of the multiplicand as there are figures of nine in your multiplier, which dots ſuppoſe to be cyphers; then, beginning with the right hand dot, ſubtract the given multiplicand from the new multiplicand, and the remainder will be the total product.

EXAMPLES.

1.	2.	3.
8175..	32718...	72836....
99	999	9999
809325	32685282	728287164

In order to make theſe examples as clear as poſſible, I ſhall illuſtrate them by giving you another.

Multiply	21785 . . .	According to the rule it will ſtand thus:	21785 . . .	minuend.
By	999		21785	ſubſtrahend.
	21763215		21763215	

N. B. You need only place as many dots to the right hand of your multiplicand as there are nines in your multiplier: the given multiplicand may be eaſily ſubtracted from it without placing it underneath.

Case VIII.

To multiply by 13, 14, 15, 16, *&c.* to 19, *incluſive*, at one multiplication: multiply the multiplicand by the unit figure of the multiplier, and add to the product of each multiplication, that figure which ſtands next on the right hand to that which you multiplied, and to the laſt figure in the multiplicand add what you carry.

Examples.

1.	2.	3.	4.	5.	6.	7.
3182	2183	62805	7164	82315	4182	7132
13	14	15	16	17	18	19
						135508

Thus, in example the 7th, I ſay, 9 times 2 is 18; I put down 8 and carry 1; ſaying, 9 times 3 is 27, and one that I carried makes 28, and 2, (the right hand figure to 3) makes 30; I put down a cypher and carry 3: then, 9 times 1 is 9, and 3 which I carried makes 12, and 3, its right hand figure, is 15; therefore I put down 5, and carry 1; ſaying, 9 times 7 is 63, and 1 which I carried is 64, and 1, its right hand figure, is 65; therefore I put down 5, and carry 6: laſtly, 6 and 7, (the laſt figure in the multiplicand makes 13; ſo I put down 13, which gives me the total product.

Case IX.

To multiply by 111, 112, 113, *&c.* to 119, *incluſive*, ſo as to have the product in one line: multiply the multiplicand by the unit figure only of the multiplier, and add to the product the *two* figures which ſtand next on the *right* hand to that which you multiplied, and to the two laſt figures, ſeparately, add what you carry.

Ex-

EXAMPLES.

1.	2.	3.	4.	5.
2183	4296	5839	6273	7182
111	112	113	114	115

6.	7.	8.	9.
83716	3295	8183	7295
116	117	218	119
			868105

In example 9th, I begin and ſay, 9 times 5 is 45, I ſet down 5 and carry 4; then 9 times 9 is 81, and 4 I carried makes 85, and 5, its right hand figure, makes 90, I ſet down 0 and carry 9; then I ſay, 9 times 2 is 18, and 9 I carried is 27, and its right hand figures 9 and 5 make 41, I ſet down 1 and carry 4; then 9 times 7 is 63, and 4 I carried is 67, and 2 is 69, and 9 is 78, I ſet down 8 and carry 7; which 7 I add to 7 and 2, the two laſt figures, they make 16, I then ſet down 6 and carry 1: laſtly, this 1 and 7 makes 8, which I ſet down: And thus I have the product in *one* line, at *one* multiplication, and, I preſume, in a very *ſimple* and *conciſe* manner.

CASE X.

To multiply by 101, 102, 103, *&c.* to 109, *incluſive*, ſo as to have the product in one line: multiply the multiplicand by the unit figure of the multiplier, and add to it the next right hand figure but one to that which you multiplied, remembering to add to the two laſt figures in your multiplicand, ſeparately, what you carry.

EXAMPLES.

1.	2.	3.	4.	5.
32785	5287	5376	7806	32789
101	102	103	104	105

6.	7.	8.	9.
387	32175	65127	3478
106	107	108	104
			361712

Thus, in example the 9th, I begin and ſay 4 times 8 is 32, I ſet down 2 and carry 3; then 4 times 7 is 28, and 3 I carried is 31, I ſet down 1 and carry 3; then 4 times 4 is 16 and 3 is 19, and 8, its next right hand figure but one, makes 27; I ſet down 7 and carry 2; ſaying, 4 times 3 is 12, and 2 is 14, and 7 (its next right hand figure but one (makes 21, I ſet down 1 and carry 2, and add it to the 4, (the laſt figure but one in the multiplicand) and it makes 6, which I ſet down; and, laſtly, as I carry nothing from the 6, I ſet down the laſt figure 3, and I have the whole product, *viz.* 361712, in one line.

CASE IX.

To multiply by 21, 31, 41, 51, 61, 71, 81 and 91 in one line: firſt bring down the unit figure of the multiplicand, which will always be the unit figure of the product; then multiply the tens figure of the multiplier by every figure of the multiplicand, and to each product add the figure which ſtands next on the left hand to that which you multiplied.

EXAMPLES.

7086	80713	4286	5394
21	31	41	51
8276	9718	74826	8327
61	71	81	91
			757757

Thus, in the laſt example, I firſt bring down the 7, the unit figure of the multiplicand, for the unit figure of the product; and then I ſay, 9 times 7 is 63, and 2 (its left hand figure) makes 65, I therefore ſet down 5 and carry 6; then I ſay, 9 times 2 is 18, and 6 I carried makes 24, and 3 (its left hand figure) makes 27; I ſet down 7 and and carry 2; ſaying, 9 times 3 is 27, and 2 I carried is 29, and 8 (its left hand figure) makes 37; I ſet down 7 and carry 3: laſtly, I ſay, 9 times 8 is 72, and 3 I carried is 75, which I ſet down, and find the total product to be 757757.

CASE. XII.

To multiply by 22, 23, 24, 25, 26, 27, 28 and 29, ſo as to have the product in one line: multiply every figure of the multiplicand by the unit figure of the multiplier, and add, to each product, twice that figure which ſtands next on the right hand to that which you multiplied,

multiplied, and to twice the laſt figure of the multiplicand add what you carry.

EXAMPLES.

3178	61729	1742	8375
22	23	24	25
96842	31875	3789	4263
26	27	28	29
			123627

In the laſt example, I begin and ſay, 9 times 3 is 27, I ſet down 7 and carry 2; then 9 times 6 is 54, and 2 I carried is 56, and 3 (its right hand figure) added twice, makes 62; (that is, 56 and 3 is 59, and 3 is 62;) therefore I ſet down 2 and carry 6; ſaying, 9 times 2 is 18, and 6 I carried is 24, and 6 (its right hand figure) added twice, makes 36; I ſet down 6 and carry 3: then, 9 times 4 is 36, and 3 I carried is 39, and 2 (its right hand figure) added twice, makes 43; I ſet down 3 and carry 4: laſtly, I add this 4 to twice the laſt multiplicand figure 4, and it makes 12, and I have 123627 for its total product.

Of COMPOUND MULTIPLICATION.

COMPOUND MULTIPLICATION is extremely uſeful in finding the value of goods, as will appear from the manner of working the following examples.

CASE I.

When the quantity does not exceed 13 yards, ells, &c. ſet down the price of 1 yard, and place the quantity underneath the leaſt denomination for the multiplier; and in multiplying by it, you muſt obſerve the ſame rules as in Compound Addition, for carrying from one denomination to another.

INTRODUCTORY EXAMPLES.

	l.	*s.*	*d.*	*l.*	*s.*	*d.*	*l.*	*s.*	*d.*	*l.*	*s.*	*d.*
Multiply	12	16	6	21	11	10	18	13	4	10	13	11
By			3			4			5			6

Multiply

	l.	*s.*	*d. qr.*	*l.*	*s.*	*d. qr.*	*l.*	*s.*	*d. qr.*	*l.*	*s.*	*d. qr.*
Multiply	37	18	11¼	8	14	2½	8	10	8¼	32	17	4½
By			7			8			9			10

	l.	*s.*	*d. qr.*	*l.*	*s.*	*d. qr.*	*l.*	*s.*	*d. qr.*	*l.*	*s.*	*d. qr.*
Multiply	8	15	6¼	12	0	11½	18	12	0½	3	13	2¾
By			12			11			9			11
										40	5	6¼

In the laſt example, I ſay, 11 times 3 is 33; 33 farthings = 8¼d. I ſet down ¼ and carry 8, ſaying 11 times 2 is 22, and 8 I carried is 30; 30 pence = 2 s. 6 d. I ſet down 6 in the pence, and carry 2: then I ſay, 11 times 3 (the unit figure of the ſhillings) is 33, and 2 I carried is 35; I ſet down 5 underneath the unit figure of the ſhillings, and carry 3; ſaying, 11 times 1 is 11, and 3 I carried makes 14; then I halve 14, which is 7, and there remains nothing; therefore I carry 7 as pounds: laſtly, 11 times 3 is 33, and 7 I carried is 40, which I ſet down, and find the product to be 40 l. 5 s. 6¼ d.

Again---Suppoſe I had occaſion to multiply 19 s. by 8;--- I ſhould ſay, 8 times 9 is 72; I ſet down 2 and carry 7; then 8 times 1 is 8, and 7 I carried makes 15; the half of 15 is 7, and 1 over; therefore I ſet down the 1 on the left hand of the 2, which makes it 12 s. and the 7 is pounds, as may be ſeen by the operation adjoined.

l.	*s.*
0	19
0	8
L. 7	12

PRACTICAL QUESTIONS.

1. What will 11 yards of cloth coſt at 3 s. 8 d. *per* yard?

l.	*s.*	*d.*	
0	3	8	price of one yard.
		11	yards.

Anſwer, L. 2 0 4 price of 11 yards.

Queſtions.				Queſtions.			
yds.	*s.*	*d.*		*yds.*	*s.*	*d.*	
10 at	57	6	*per* yard	7 at	16	3	*per* yard.
9—	5	7		11—	32	6	
11—	14	10½		11—	6	8	
12—	9	6		9—	5	3½	
7—	11	3		11—	19	10¾	

CASE

CASE II.

When the multiplier (that is, the quantity) is above 12, you muſt multiply by two ſuch numbers as, when multiplied together, will produce the given quantity; as, ſuppoſe it to be 54, you muſt firſt multiply by 6, and this product afterwards by 9; or by 9 firſt and 6 afterwards: the laſt product will be the anſwer.

1. What will 121 yards of cloth coſt, at 2 s. 4½ d. *per* yard?

l.	*s.*	*d.*	
0	2	4½	price of 1 yard.
		11	
1	6	1½	price of 11 yards
		11	
Anſwer, *L.* 14	7	4½	price of 121 yards

Queſtions.		Anſwers.			Queſtions.		Anſwers.		
yds.	*s.* *d.*	*l.*	*s.*	*d.*	*yds.*	*s.* *d.*	*l.*	*s.*	*d.*
60 at	5 7¼ *pr.* yard.	16	18	9	54 at	3 8—9	18	0	
42 —	8 11	18	14	6	96 —	5 4—25	12	0	
36 —	9 9	17	21	0	33 —	2 7½—4	6	7½	
72—	12 6	45	0	0	108 —	17 10—96	6	0	
144—	13 6	97	4	0	81 —	3 10—15	10	6	

N. B. *For the better underſtanding of Compound Multiplication, let the ſcholar be well initiated in the ſix following Queſtions.*

2. What will ¾ of a yard of cloth coſt, at 3 s. 9 d. *per* yard?
Anſwer, *L.* 0 : 2 : 9¾.

2. What will ½ lb. of tea coſt, at 17 s. 11½ d. *per* lb.?
Anſwer, *L.* 0 : 8 : 11¾.

3. What will ¼ ell of cloth coſt, at 15 s. 11 d. *per* ell?
Anſwer, *L.* 0 : 3 : 11¾.

4. What will ½ buſhel of wheat coſt, at 5 s. 7 ½ *per* buſhel?
Anſwer, *L.* 0 : 2 : 9¾

5. What will ¼ gallon of rum coſt, at 9s. 10d. *per* gallon?
Anſwer, *L.* 0 : 2 : 5½.

6. What

6. What will $\frac{3}{4}$ ell of cloth coſt, at 3 l. 17 s. 11 d. *per* ell?
Anſwer, *L.* 2 : 18 : $5\frac{1}{4}$.

CASE III.

When the quantity is ſuch a number as no two numbers in the table will produce it exactly, then multiply by two ſuch numbers as come the neareſt to it; and for the number wanting, multiply the given price of one yard by the number of yards, and add the products together for the anſwer: But if the two numbers exceed the given quantity, then find the value of the overplus, and ſubtract it from the laſt product, and the remainder will be the anſwer.

1. What will 29 yards of cloth coſt, at 14 s. 7 d. *per* yard?

	l.	*s.*	*d.*	
	0	14	7	the price 1 yard.
Multiplied by – –			3	
Produces – – –	2	3	9	price of 3 yards.
Multiplied by – –		–	9	
Produces – – –	19	13	9	price of 27 yards.
Twice the price of 1 yard is	1	9	2	price of 2 yards.
Anſwer, *L.*	21	2	11	price of 29 yards.

N. B. This queſtion may be performed by firſt finding the value of 30 yards, from which if you ſubtract the price of one yard, the remainder will the value of 29 yards, as above.

Queſtions.				Anſwers.			Queſtions.				Anſwers.		
yds.		*s.*	*d.*	*l.*	*s.*	*d.*	*yds.*		*s.*	*d.*	*l.*	*s.*	*d.*
61	at	3	$4\frac{1}{2}$ *per* yd.	10	5	$10\frac{1}{2}$	$65\frac{3}{4}$	at	2	10 *per* yd.	9	6	$3\frac{1}{2}$
$140\frac{1}{4}$	—	17	2	120	7	$7\frac{1}{2}$	$73\frac{1}{2}$	—	7	9	28	9	$7\frac{1}{2}$
123	—	35	3	216	15	9	$52\frac{1}{4}$	—	3	4	8	14	2
$41\frac{1}{2}$	—	7	9	16	1	$7\frac{1}{2}$	91	—	12	8	57	12	8
82	—	3	$9\frac{1}{2}$	15	10	11	$57\frac{1}{2}$	—	17	$10\frac{1}{2}$	51	7	$9\frac{3}{4}$

CASE IV.

When the quantity is any number above the multiplication table, multiply the price of 1 yard by 10, which will produce the price of 10 yards; *this* product multiplied by 10 will give you the price of 100 yards; then, if the quantity do not exceed hundreds, you muſt multiply the price of one hundred by the number of hundreds in your queſtion, the price of ten by the number of tens, and

and the price of unity, or 1, by the number of units: Laſtly, Add theſe ſeveral products together, and the ſum will be the anſwer.

EXAMPLES.

1. What will 246 yards of cloth coſt, at 3 s. 10½ *per* yard?

	l.	*s.*	*d.*	
	0	3	10½	price of one yard.
			10	
	1	18	9	price of 10 yards.
			10	
	19	7	6	price of 100 yards.
			2	
	38	15	0	price of 200 yards.
4 times the price of 10 yards is	7	15	0	price of 40 yards.
6 times the price of 1 yard is	1	3	3	price of 6 yards.
Anſwer,	47	13	3	price of 246 yards.

Queſtions.				Anſwers.			Queſtions.				Anſwers.		
yds.	*s.*	*d.*		*l.*	*s.*	*d.*	*yds.*	*s.*	*d.*		*l.*	*s.*	*d.*
289 at	17	10½	*per* yd.	258	5	10½	968¾ at	6	4	*per* yd.	306	15	5
364 —	5	8½		103	17	10	326 —	1	7½		26	9	9
483 —	11	5		275	14	3	842¼ —	3	9		157	18	5¼
607 —	2	11½		89	15	8½	4362½ —	1	6½		336	5	6¼

CASE V.

When the quantity does not exceed 150, nor the price 12 pence, then, by the pence table, find what it comes to, at 1 penny *per* yard, &c. and multiply this ſum by the number of pence in the price, and the product will be the anſwer.

EXAMPLES.

1. What will 138 yards coſt, at 10½ d. *per* yard?

	l.	*s.*	*d.*	
138 pence is —	0	11	6	the price at 1 d. *per* yard.
			10	
	5	15	0	the price at 10 d. *per* yard.
Half of 11 s. 6 d. is	0	5	9	the price at ½ d. *per* yard.
Anſwer,	6	0	9	the price at 10½

Queſtions.		Anſwers.			Queſtions.		Anſwers.		
Yds.	*d.*	*l.*	*s.*	*d.*	*yds.*	*d.*	*l.*	*s.*	*d.*
$52\frac{3}{4}$ at	7 *per* yd.	1	10	$9\frac{1}{4}$	$150\frac{1}{2}$ at	$5\frac{1}{2}$ *per* yd.	3	8	$11\frac{3}{4}$
$81\frac{1}{2}$ —	$11\frac{1}{2}$	3	18	$1\frac{1}{4}$	79 —	$11\frac{3}{4}$	3	17	$4\frac{1}{4}$
$127\frac{1}{4}$ —	8	4	4	10	19 —	$3\frac{1}{4}$	1	12	$2\frac{3}{4}$
149 —	$10\frac{3}{4}$	6	13	$5\frac{3}{4}$	106 —	$6\frac{3}{4}$	2	19	$7\frac{1}{2}$
$61\frac{3}{4}$ —	3	0	15	$5\frac{1}{4}$	$21\frac{1}{4}$ —	10	0	17	$8\frac{1}{2}$

N. B. Obſerve this rule improved in caſes 13th and 14th of *Practice*.

Case VI.

To find the value of a hundred weight, by having the price of 1lb. :—Set down 2 s. 4 d. and multiply it by the number of farthings in the price of 1 lb. and the product will be the anſwer.

N. B. If the price be in pence, ſet down 9 s. 4 d. and multiply by the pence in the price for the anſwer.

Queſtions.		Anſwers.			Queſtions.		Anſwers.		
cwt.	*d.*	*l.*	*s.*	*d.*	*cwt.*	*d.*	*l.*	*s.*	*d.*
1 of Iron at	$1\frac{3}{4}\frac{1}{2}$ *per* lb.	0	17	6	1 of Iron at	2 *per* lb.	0	18	8
1 ditto —	$2\frac{1}{4}$	1	1	0	1 ditto —	$3\frac{1}{4}$	1	10	4
1 ditto —	$2\frac{1}{4}\frac{1}{2}$	1	2	2	1 ditto —	$3\frac{1}{2}$	1	12	8
1 ditto —	$2\frac{1}{2}$	1	3	4	1 ditto —	$3\frac{3}{4}$	1	15	0
1 ditto —	$2\frac{3}{4}$	1	5	8	1 ditto —	$6\frac{1}{4}$	2	18	4
1 ditto —	3	1	8	0	1 ditto —	$4\frac{3}{4}$	2	4	4

Case VII.

To find the value of 2 or more hundred weight, by having the price of one pound, firſt find the price of 1 cwt. by the laſt caſe, and then proceed to find the value of the whole, by caſe the 1ſt or 2d, as the queſtion may require.

Examples.

1. What is the value of $7\frac{1}{2}$ cwt. of cheeſe, at 4d. *per* lb. ?

	l.	*s.*	*d.*	
	0	9	4	price of 1 cwt. at 1 d. *per* lb.
			4	
	1	17	4	price of ditto, at 4 d. *per* lb.
			7	
	13	1	4	price of 7 cwt.
Half of 1 cwt. is	0	18	8	price of $\frac{1}{2}$ cwt.
Anſwer, L.	14	0	0	price of $7\frac{1}{2}$ cwt.

Queſtions.		Anſwers.		
cwt.	*d.*	*l.*	*s.*	*d.*
3 of cheeſe at	$3\frac{3}{4}$ *per* lb.	5	5	0
$6\frac{1}{4}$ ditto	—7	20	8	4
$2\frac{3}{4}$ ditto	—$5\frac{1}{2}$	7	1	2

Queſtions.		Anſwers.		
cwt.	*d.*	*l.*	*s.*	*d.*
9 of cheeſe at	4 *per* lb.	16	16	0
$15\frac{3}{4}$ ditto	—$2\frac{1}{2}$	18	7	6
$17\frac{1}{2}$ ditto	—$7\frac{1}{2}$	61	5	0

CASE VIII.

To find the value of a hundred weight, when the price of one lb. is any number of pounds and ſhillings, or ſhillings, pence and farthings :—Multiply the price of 1 lb. by 7, its product by 8, and this product by 2 ; which laſt product will be the anſwer required.

EXAMPLES.

1. What will 1 Cwt. of cinnamon coſt, at 8 s. $7\frac{1}{2}$ d. *per* lb.?

l.	*s.*	*d.*	
0	8	$7\frac{1}{2}$	price of 1 lb.
		8	
3	9	0	price of 8 lb.
		7	
24	3	0	price of 56 lb.
		2	

Anſwer, L. 48 6 0 price of 112 lb. or 1 Cwt.

Queſtions.		Anſwers.		
s.	*d.*	*l.*	*s.*	*d.*
1 Cwt. at 4	$2\frac{3}{4}$ *per* lb.	23	13	8
1 Cwt 37	10 —do.	211	17	4
1 Cwt 7	$2\frac{1}{2}$ —do.	40	7	4

Queſtions.		Anſwers.		
s.	*d.*	*l.*	*s.*	*d.*
1 Cwt. at 2	$11\frac{1}{2}$ *per* lb.	124	5	0
1 Cwt. 25	5 —do.	142	6	8
1 Cwt. 14	$2\frac{3}{4}$—do.	79	13	8

PRACTICAL QUESTIONS *in the* WEIGHTS *and* MEASURES.

1. What is the weight of 5 hogſheads of ſugar, each weighing, neat weight, 3 Cwt. 1 qr. 26 lb?

	Cwt.	*qr.*	*lb.*
Anſwer,	17	1	18

2. What is the weight of 3 cheſts of tea, each weighing 1 Cwt. 1 qr. 17 lb.?

	Cwt.	*qr.*	*lb.*
Anſwer,	4	0	23

3. A gentleman is poſſeſſed of 12 ſilver table ſpoons, each weighing 2 oz. 14 dwt.—$1\frac{1}{2}$ dozen of tea ditto, each weighing

14½ dwt.—2 ſilver mugs, each 13 oz. 17 dwt.—and a ſilver tankard, 23 oz. 13 dwt.—Pray how many ounces of ſilver has he?

lb. *oz.* *dwts.*

Anſwer, 8 0 16

4. In 22 pieces of cloth, each meaſuring 31¼ yards, how many yards?

5. In 7 pieces of cloth, each whereof meaſures 19 ells Eng. 2 qrs. 3 na. how many ells?

6. Admit a board to be 12¾ feet long, and 3 feet wide, how many feet does it contain?

7. How many gallons of wine are there in 5 caſks, each containing 32 gals. 1 qt. 3 pts.?

8. I have 7 incloſures, each whereof meaſures 5 acres 3 roods 17 poles, how many acres do they contain?

9. How much is the weight of 71 kits of ſalmon, each weighing 2 qrs. 5 lb.?

10. What is the weight of 15 bales of cloth, each bale containing 4 Cwt. 3 qrs. 19 lb.?

11. What quantity of yards are there in 35 pieces of hanging paper, each of which meaſures 11 yds 3 qrs. 2 na.?

Of DIVISION.

DIVISION teaches to diſcover how often one number is contained in another, and is a conciſe way of performing ſeveral ſubtractions.

There are *four* principal parts to be taken notice of in Diviſion, *viz.*

1. The Dividend, or number given to be divided.
2. The Diviſor, or number given to divide by.
3. The quotient, or anſwer to the queſtion; which ſhews how oft the Diviſor is contained in the Dividend.
4. The Remainder (which is always leſs than the Diviſor, and of the ſame name or value as the Dividend) is very uncertain, as there is ſometimes a Remainder, and ſometimes none.

Diviſion is of *two* ſorts, Simple and Compound.

Simple Diviſion is the dividing of one number by another, without regard to their value: as, 96 divided by 12, produces 8 in the

the Quotient; that is, the number 12 is contained 8 times in the number 96.

Simple Diviſion contains two ſorts, *viz.* Short and Long Diviſion.

of SHORT DIVISION.

Short Diviſion is when the Diviſor does not exceed 12.

RULE. Firſt ſeek how often the Diviſor can be had out of the firſt figure or figures of the Dividend; which place in the Quotient, and as many units as remain, they muſt be accounted ſo many tens; to which you muſt add the next (and every other) figure in the Dividend, and ſeek the Quotient figure or figures, as before.

To prove Diviſion: Multiply the Diviſor and Quotient together, and add the remainder, if there be any, to the Product: that ſum will be equal to the Dividend, if the work be right.

EXAMPLES.

Diviſor. Dividend.	3)4176	4)15732	5)613780	6)2274
Quotient.	1392			
	3			
Proof.	4176			
	7)42835	8)217830	9)260875	11)37148
	12)317829	11417806	8)4208674	9)720985

of LONG DIVISION.

CASE II.

Firſt ſeek how many times the Diviſor is contained in a competent number of the firſt figures of the Dividend;—place the ſaid figure in the Quotient;—multiply the Diviſor by this Quotient figure, and place the product underneath the Dividend;—then draw a line and ſubtract, and bring down the next figure of the Dividend, to the right hand of the Remainder:—after which, you muſt

muſt ſeek, multiply, and ſubtract, till you have brought down every figure of the Dividend.

EXAMPLES.

Diviſ. Divid. Quotient.

32)147867(4620$\frac{27}{32}$
128···

198
192

66
64

27 Remainder.

N. B. When there is a remainder, it muſt be placed in ſmall figures over the Diviſor, to the right hand of the Quotient, as above.

See the PROOF *of this Queſtion.*

4620 Qotient.
32 Diviſor + 27

9267
13860

157867

Obſerve, That in multiplying by 2, I add the remainder 27.

Diviſor. Dividend. Quotient.

714)827566(1159$\frac{40}{714}$
714

1135
714

4216
3570

6466
6426

40 Remainder.

Thus, in example the firſt, I find 32 (the Diviſor) cannot be contained in the two firſt figures of the Quotient; therefore I take three figures, *viz.* 147, and inquire how oft 32 is contained therein; which finding to be 4 times, I place the 4 in the Quotient, and multiply the Diviſor by it, ſetting the firſt figure of the multiplication underneath the 7 in the Dividend, *&c.* I then draw a line, and ſubtract 128 from 147, and find a remainder of 19; and to the right hand thereof I bring down the next figure of the Dividend, *viz.* 8; then I enquire how oft the Diviſor 32 is contained in 198; and finding it to be 6 times, I multiply the Diviſor by it, and proceed as before.

29)710684(
53)490872(
73)84296(
89)41832(
423)179062(
839)1780654(
57295)83786543(

38)410867(
57)285792(
79)148373(
278)371428(
534)871463(
3759)987268(

47)371829(
68)318294(
87)592731(
314)872637(
716)821476(
9986)2738318(
71839)70863947(

CASK

Case III.

When there is a cypher or cyphers at the right hand of the Diviſor, they muſt be cut off; and likewiſe, you muſt cut off the ſame number of figures from the Dividend, and then proceed as at Caſe II.; but remember, that thoſe figures which you cut off from the Dividend, muſt be placed to the right hand of the Remainder, which remainder would have fallen out, if you had divided without cutting off the figures.

Examples.

Diviſor. Dividend. Quotient.

378|00)57928|39(153 9439/37800
378
2012
1890
1228
1134
9439 Remainder.

97|000)4278|310(44 1031/9700 = 10310/97000
388
398
388
10310

814000)71423695(
7100)84780000(
39580)5741300(

9375000)814867295(
1000)8732700(
100)371428000(

N. B. In dividing by 10, 100, 1000, *&c.* cut off as many figures from the Dividend as there are cyphers in the Diviſor, and your work will be done: thoſe figures on the right hand, cut off, will be the Remainder, and thoſe on the left, the Quotient.

Case IV.

When the Diviſor is ſuch a number, that any two figures in the table of Products being multiplied together will make the ſaid Diviſor, divide the given Dividend by one of thoſe figures, and that Quotient by the other, this laſt Quotient will be the anſwer.

N. B. To find the true remainder, multiply the laſt remainder by the firſt Diviſor, and add in the firſt remainder.

Divide 8376 by 42.

1st Method.	*2d Method.*	*3d Method.*
6)8376	7)8376	42)8376(199 Quotient
7)1396	6)1176[4]	42
Quotient. $199\frac{18}{42}$	$199\frac{18}{42}$ Quo.	417
		378
		396
		378
		18 Remainder.

Please to remark, that I have wrought the above question three ways, in order to make you understand the method of finding the true remainder, according to this case.—In the *first* method, in dividing by 6 there remains nothing, in dividing by 7 there remains 3; which being the last remainder, I multiply it by the first Divisor 6, and the product is 18, the true remainder.—In the *second* method, dividing by 7 there remains 4, and by 6 there remains two; therefore I multiply 2, the last remainder, by 7, the first divisor, the product is 14; to which I add 4, the first remainder, it makes 18, the true remainder.—The *third* method is self-evident.

2	3	4
72)4896	96)40875	99)418236
5	6	7
24)18298	88)74862	108)512376(

Case V. *Or*, Contracted Division.

To perform Division, without setting down the multiplication:—First seek how oft the Divisor can be contained, as before directed; place the figure in the Quotient, and multiply it with the Divisor, and subtract the unit figure of the multiplication from the Dividend: if you are obliged to borrow in subtracting, you must add one extraordinary to the next multiplication, and proceed as before.

Examples.

578)487325(843
2492
1805
71 Remainder.

In this example, I find the first Quotient figure to be 8; then I say, 8 times 8 is 64; subtract the unit figure 4 from the 3 in the Dividend, and there remains 9; then, as I was obliged to borrow 1 in subtracting, I carry 7, that is, 6 tens in 64, and 1 ten I borrowed make 7 tens; saying, 8 times

8 times 7 is 56, and 7 I carried makes 63; then I ſay, 3 from 7 there remains 4, I then carry only 6, as I borrowed none in the ſubtraction; next I ſay, 8 times 5 is 40, and 6 I carried makes 46, which ſubtracted from 48 there remains 2; I bring down the next figure, and proceed in the ſame manner through the whole: and by this method, which is very plain and intelligible, a queſtion in Diviſion may be wrought nearly in half the time, and with as little fallibility, as by the common method.

I recommend it to the ſtudent, to work the queſtions given in caſe 2d after this manner, as well as the following.

283)84795(	7183)4279365(	317)418096(
916)840786(	8317)538469(	38000)9786700(

of COMPOUND DIVISION.

COMPOUND DIVISION is the dividing of numbers of different denominations; in doing which, always begin at the higheſt, and obſerve the ſame rules as in Compound Addition, from one denomination to another.

INTRODUCTORY EXAMPLES.

Divide 478 l. 18 s. 6 d. by 6

l.	*s.*	*d.*
6)478	18	6
L. 79	16	5 Quotient.

In this example, beginning at the pounds, I ſay, how oft 6 in 47; I find it 7 times and 5 over; I ſet down 7, and the five is 5 tens, *viz.* 50, and 8 added is 58: how oft 6 in 58; I find it 9 times and 4 over; I ſet down 9: then having done dividing the pounds, the 4 that remains is 4 pounds, which are equal to 80 ſhillings, and 18 in the ſhillings make 98, then I find 6 is contained 16 times in 98, and 2 over; I ſet down 16 under the ſhillings, and reduce the 2 s. that remained into pence, which make 24, and 6 pence in the queſtion added make 30: then I ſay how oft 6 in 30; and finding it to be exactly 5 times, I ſet it down, which gives me 79 l. 16 s. 5 d. for the quotient.

l.	*s.*	*d.*
4)23	17	8
5)63	17	9½
6)47	18	10½
7)91	14	5¼
8)28	19	4
9)32	16	7½
10)33	11	8
11)74	18	6¼

Tons. C. qr. lb.	Tons. C. qr. lb.	lb. oz. dr.	lb. oz. dr.
4)17 12 1 18	5)7 11 3 27	6)34 12 14	7)8 13 15

lb. oz. dwts. gr.	lb. oz. dwts. gr.	lb. oz. dwts. gr.	lb. oz. dwts. gr.
6)23 10 17 22	7)15 11 5 18	8)31 6 19 4	9)7 4 17 15

lb ℥ ʒ ℈ gr.	lb ℥ ʒ ℈ gr.	lb ℥ ʒ ℈ gr.
10)31 11 7 1 10	11)54 6 3 2 19	12)28 10 7 0 15

Yds. qr. na.	E. E. qr. na.	E. Fr. qr. na.	E. Fl. qr. na.	Yds. qr. na.
3)14 3 1	4)59 4 0	5)17 3 0	6)36 1 2	7)9 2 2

T. hhds. gal. qts.	T. hhds. gal. pts.	Hhds. gal. qts.	Hhds. gal. pts.
3)7 3 61 3	4)3 2 48 6	5)31 59 3	6)71 18 4

AB. fir. gal.	B B. fir. gal.	AB. fir. gal.	BB. fir. gal.
5)317 3 7	6)16 2 6	8)39 2 6	12)81 1 8

Ch. bu. p.	Ch. bu. p.	Acr. r. po.	A. r. p.
6)39 18 2	9)88 17 3	12)108 2 38	7)17 3 17

Mi. fur. po.	Mi. fur. po.	Mo. w. d.	D. ho. min. sec.
8)8 3 28	7)17 7 19	6)8 2 6	4)18 16 31 52

Practical Questions. Case I.

Having the price of any number of yards, &c. within the pence table, to find the price of unity, or 1 yard:—If the quantity exceed not 12, proceed as directed laſt, by ſetting down the price, and dividing by the quantity; which Quotient will be the value of 1 yard required: but if the quantity exceed 12, then divide by two ſuch numbers as, when multiplied together, will produce the quantity: the laſt Quotient will be the value of 1 yard required.

N. B. This caſe proves the 1ſt and 2d caſes in Compound Multiplication.

1. If

1, If 11 yards of cloth coſt 2 l. 0 s. 4 d. what is it *per* yard?

	l.	*s.*	*d.*
11)2	0	4	
	0	3	8 Anſwer.

2. If 9 ells coſt 2l. 10 s. 3d. what coſt 1 ell?

3. If 11 lb. coſt 8l. 3 s. 7½ d. what coſt 1 lb.?

4. If 12 gallons of rum coſt 5 l. 14 s. what coſt 1 gallon?

5. If 72 ſheep coſt 45 l. what coſt 1 ſheep?
Anſwer, 12 s. 6 d.

6. If 108 boles of peaſe coſt 96l. 6 s. what coſt 1 bole?
Anſwer, 17 s. 10 d.

CASE II.

Having the price of a hundred weight, to find the price of 1 lb.—

Divide the given price by 8, that Quotient by 7, and this Quotient by 2; which laſt Quotient will be the price of 1 lb. required.

EXAMPLES.

1. If 1 cwt. of cheeſe coſt 1 l. 1 s. what is that *per* lb?

	l.	*s.*	*d.*
8)1	1	0	
7)0	2	7½	
Anſwer,	0	0	2¼ price of 1 lb.

2. At 1 l. 3 s. 4 d. *per* cwt. what coſt 1 lb.?
Anſwer, 2½ d.

3. At 1 l. 5 s. 8 d. *per* cwt. what coſt 1 lb.?
Anſwer, 2¾ d.

4. At 28 s. *per* cwt. what coſt 1 lb.?
Anſwer, 3 d.

5. At 2 l. 2 s. *per* cwt. what coſt 1 lb.?
Anſwer, 4½ d.

6. At 35 s. *per* cwt. what coſt 1 lb.?
Anſwer, $3\frac{3}{4}$ d.

Note, This caſe proves the 6th caſe in Multiplication.

Case III.

Having the price of ſeveral hundred weight, to find the price *per* lb.—

Divide the whole price by the number of hundreds, which will give you the price *per* cwt. and then proceed as directed in the laſt caſe.

Examples.

1. If 3 cwt. of cheeſe coſt 5l. 5 s. what is that *per* lb?

	l.	*s.*	*d.*	
3)	5	5	0	
7)	1	15	0	price of 1 cwt.
8)	0	5	0	
2)	0	0	$7\frac{1}{2}$	
Anſwer,	0	0	$3\frac{3}{4}$	price of 1 lb.

2. If 9 cwt. of emery coſt 16 l. 16 s. what is that *per* lb?
Anſwer, 4 d.

4. If $6\frac{1}{4}$ cwt. of ſugar coſt 20 l. 8 s. 4 d. what is it *per* lb.?
Anſwer, 7 d.

5. If $2\frac{3}{4}$ cwt. of butter coſt 7 l. 1 s. 2 d. what is that *per* lb.?
Anſwer, $5\frac{1}{2}$ d.

6. If $7\frac{1}{2}$ cwt. of cheeſe coſt 14 l. what is it *per* lb?
Anſwer, 4d.

Note, This caſe proves the 7th caſe in Multiplication.

Case IV.

Having the price of any number of yards, *&c.* to find the price of unity or 1 yard: divide the price by the quantity, beginning at the higheſt denomination; and if any thing remain, reduce it into the next and every inferiour denomination, and divide as before, remembering to add the odd ſhillings and pence, *&c.* if there be any,

any, at every reduction of their values, and you will have the value of unity required.

N. B. If there be a $\frac{1}{4}$, $\frac{1}{2}$, or $\frac{3}{4}$ of a yard, lb. *&c.* multiply both the price and the quantity by 4, and then proceed as above directed.

EXAMPLES.

1. If $140\frac{1}{4}$ yards of cloth coſt 120 l. 7 s. $7\frac{1}{2}$ d. what coſt 1 yard?

See the OPERATION.

	yards.
Quantity	$140\frac{1}{4}$
Mult. by	4

Produces 561 for diviſ.

	l.	*s.*	*d.*
Price	120	7	$7\frac{1}{2}$
Mult. by			4

Prod. 481 10 6 for divid.

561)481 10 6 (0 17 2 Anſwer,
20

561)9630(17
561

4020
3927

93
12

561)1122(2
1122

2. If 123 boles of wheat coſt 216 l. 15 s. 9d. what coſt 1 bole?

Anſwer, 35 s. 3d.

3. If $57\frac{1}{4}$ yards coſt 51 l. 3 s. 4 d. $0\frac{1}{2}$ qr. what coſt 1 yard?
Anſwer, 17 s. $10\frac{1}{2}$ d.

4. If 82 yards of cloth coſt 15 l. 10 s. 11 d. what coſt 1 yard?
Anſwer, 3 s. $9\frac{1}{2}$ d.

5. If $73\frac{1}{2}$ gallons coſt 28 l. 9 s. $7\frac{1}{2}$ d. what coſt 1 gallon?
Anſwer, 7 s. 9 d.

6. If 29 yards of cloth coſt 12 l. 2 s. 11 d. what coſt 1 yard?
Anſwer, 14 s. 7 d.

7, If

7. If 61 ells of cloth coſt 10 l. 5 s. 10½ d. what coſt 1 ell?
Anſwer, 3 s. 4½ d.

8. If 41½ lb. of tea coſt 16 l. 1 s. 7½ d. what coſt 1 lb?
Anſwer, 7 s. 9 d.

9. If 65¾ ells coſt 9 l. 6 s. 3½ d. what coſt 1 ell?
Anſwer, 2 s. 10 d.

10. If 91 ſheep coſt 57 l. 12 s. 8 d. what coſt 1 ſheep?

l.	*s.*	*d.*	*l.*	*s.*	*d.*	
91) 57	12	8	(0	12	8	Anſwer.
20						
91)1152(12						
91						
242						
182						
60						
12						
91)728(8						
728						

N. B This caſe proves the 3d and 4th caſes in Compound Multiplication.

Practical Questions *in* Money.

1. Divide 165 l. 4 s. 4 d. among 7 men and 9 women, and give the men twice as much as the women.

Men. *Women.* *Shares.* *l.* *s.* *d.* *l.* *s.* *d.*

7 and 9 Divide by 23)165 4 4 (7 3 8=1 wom. ſhare.
Mult. by 2 161 9 women.

14 ſhares. 4 64 13 0=9 wom. ſhare.
Add 9 womens ſhares 20

23 the number of equal 23)84)3 *s.*
— ſhares in the whole 69

15
12

l. *s.* *d.*
7 3 8=1 wom. ſhare.
Mult. by 2 23)184(8 *d.*

l. *s.* *d.*
147 4=1 man's ſhare 14 7 4

l. s. d.
14 7 4=1 man's ſhare ——
7 men.

L. 100 11 4=7 mens ſhares.
64 13 4=9 womens ſhares.

L. 165 4 4 Proof.

2. Divide 165 l. among 7 men and 9 women, and give the women twice as much as the men.

l. s. d.
Anſwer, 6 12 0=1 man's ſhare.
13 4 0=1 woman's ſhare.

3. Divide 103 l. 19 s. 2 d. among 8 men and 8 women, and give the women 4 times as much as the men.

l. s. d.
Anſwer, 2 11 11¾=1 man's ſhare.
10 7 11=1 woman's ſhare.

4. Divide 23 l. 10 s. 10 d. among 5 men, 7 women, and 6 boys, and give each man double a woman, and each woman double a boy.

l. s. d.
Anſwer, 0 11 9½=1 boy's ſhare.
1 3 6½=1 woman's ditto.
2 7 1 =

5. Divide 222 l. 16 s. 1¼ d. among 3 men, 9 women, and 17 boys, and give each man as much as 3 women, and each woman as much as 5 boys.

l. s. d.
Anſwer, 2 1 7¾=1 boy's ſhare.
10 8 2¾=1 woman's ditto.
31 4 8¼=1 man's ditto.

6. Divide 3 guineas among 9 men, and give each man 6 d. more than another.

Anſwer.—*A*'s ſhare—5 s.

7. Divide 14 l. 5 s. among 5 men, and give each man 18 d. more than another.

l. s. d.

Anſwer.—*A*'s ſhare—2 14 0

8. Divide 100 guineas among 7 men, and give each man a quarter of a guinea more than another.

l. s. d.

Anſwer.—*A*'s ſhare—14 4 3

Of REDUCTION.

REDUCTION teaches to bring or change numbers of one denomination to others, of different denominations, but of the ſame value: It is performed by *multiplication* and *diviſion*.

There are *two* ſorts of Reduction viz. Reduction Deſcending, and Aſcending.

Of REDUCTION DESCENDING.

RULE.

Multiply the higheſt denomination given, by as many of the next leſs as make one of that greater, and thus continue 'till you have brought it down as low as your queſtion requires.

To prove REDUCTION.

Change the order of the queſtion.

Of MONEY.

1. In 19 l. 17 s. 11¾ d. how many farthings?

l. s. d.
19 17 11¾
20 ſhillings in a pound.

397 ſhillings.
12 pence in a ſhilling.

4775 pence.
4 farthings in a penny.

Anſwer, 19103 farthings.

To

To prove the above queſtion, change the order of it, and it will then become,—In 19103 farthings how many pounds?

4)19103 farthings.

12) 4775 $\frac{3}{4}$ pence.

20) 397 : 11 ſhillings.

Anſwer, L. 19 : 17 : 11$\frac{3}{4}$ proof.—

N. B. In multiplying by 20, I add in the 17 s.; by 12, I add in the 11 d. and by 4, the $\frac{1}{4}$ d. which you muſt remember to do in the like caſes.

2. In 41 l. 11 s. 4$\frac{1}{4}$ d. how many farthings?
Anſwer, 39905.

3. In 29 l. 10 s. how many farthings?
Anſwer, 28320.

4. In 71 l. how many farthings?
Anſwer, 68160.

5. In 19 l. 2 s. 6 d. how many half-pence?
Anſwer, 9180.

6. In 17 guineas, how many pence?
Anſwer, 4284.

7. In 19$\frac{1}{2}$ guineas, how many ſhillings, pence, and halfpence?
Anſwer, 409 s.—4914 d. 9826 half-pence?

8. In 841 crowns, how many ſixpences?
Anſwer, 8410.

9. In 75 half crowns, how many pence and farthings?
Anſwer, 2250 d.—9000 qrs.

10. In 18 l. 11 s. 6 d. how many ſhillings, three-pences, and farthings?
Anſwer, 371 s.—1486 three-pences.—17832 qrs.

11. In 84 l. how many groats?
Anſwer, 5040.

12. In 14 l. how many crowns, half-crowns and farthings?
Anſwer, 56 crowns.—112 half-crowns.—13440 qrs.

13. In 64 guineas, how many farthings?
Anſwer, 64512.

14. In 32 moidores, how many ſhillings, pence and farthings?
Anſwer, 864 s.—10368 d.—41472 qrs.

15. In 847 ſhillings, how many groats, three-pences, pence and farthings?
Anſwer, 2541 groats.—3388 three-pences.—10164 d.—40656 qrs.

16. Reduce 74 guineas and three quarters, into ſhillings, ſix-pences, groats, three-pences and farthings.
Anſwer, 1569 s.—3139 ſix-pences—4709 groats—6279 three-pences—75348 qrs.

17. In 7 l. 19 s. 11½ d. how many half-pence?
Anſwer, 3839.

Of REDUCTION ASCENDING.

RULE.

Divide the loweſt denomination given by as many of that name, as make one of the next higher, and thus continue 'till you have brought it into that denomination which your queſtion requires.

1. In 39905 farthings, how many pence, ſhillings, and pounds?

Farthings in a penny 4)39905

Pence in a ſhilling 12) 9976 ¼ pence.

20) 831 : 4 ſhillings.

Anſwer, L. 41 : 11 : 4¼

M. B. The remainder is always of the ſame name as the dividend.

2. Bring 68160 farthings into pounds.
Anſwer, L. 71.

3. Bring 9180 half-pence into pence, ſhillings and pounds.
Anſwer, 4590 d.—382 s.—19 l. 2 s. 6 d.

4. Change 4284 pence into guineas.
Anſwer, 17 guineas.

5. Bring 9828 half-pence into pence, ſhillings and guineas.
Anſwer, 4914 *d.*—409 *s.*—19 *guin.* 10 *s.* 6 d.

6. Bring 8410 ſix-pences into crowns and pounds.
Anſwer, 841 *crowns*, 210 *l.* 5 *s.*

7. In 3839 half-pence, how many pounds?
Anſwer, L. 7 : 19 : 11½.

8. In

8. In 28320 farthings, how many pounds?
Anſwer, L. 26 : 10.

9. In 9000 farthings, how many pence and half-crowns?
Anſwer, 2250 pence—75 half-crowns.

10. Bring 17832 farthings into pence, ſhillings and pounds.
Anſwer, 4458 *d.*—371 *s.* 6 *d.*—18 L. 11 *s.* 6 *d.*

11. Change 5040 groats into pounds.
Anſwer, 84 pounds.

12. Change 13440 farthings into half-crowns, crowns, and pounds.
Anſwer, 112 half-crowns—56 crowns—14 L.

13. Bring 64512 farthings into guineas.
Anſwer, 64 guineas.

14. Change 41742 farthings into pence, ſhillings and moidores?
Anſwer, 10368 *d.*—864 *s.*—32 moidores.

15. In 40656 farthings, how many pence, three pences, groats and ſhillings?
Anſwer, 10164 *d.*—3388 three-pences—2541 groats—847 *s.*

16. In 75348 farthings, how many three-pences, groats, ſix-pences, ſhillings and guineas?
Anſwer, 6279 three-pences—4709 groats 1 *d.*—3139 ſix-pences and 3 *d.*—1569 *s.* 9 *d.* 74 *Guin.* 15 *s.* 9 *d.*

17. In 81792 farthings, how many pence, ſhillings and pounds?
Anſwer, 20448 *d.*—1704 *s.*—85 L. 4 *s.*

18. In 8472 pence, how many ſhillings and guineas?
Anſwer, 706 *s.*—33 *Guin.* 13 *s.*

Of REDUCTION DESCENDING *and* ASCENDING.

REDUCTION DESCENDING and ASCENDING is performed by both Multiplication and Diviſion.

Of MONEY.

EXAMPLES.

1. In 84 *l.* how many pence and half crowns?
Anſwer, 20160 *d.*—672 half crowns.

2. In 825 crowns, how many ſhillings and guineas?
Anſwer, 4125 *s.*—196 *guin.* 9 *s.*

3. In 109 half crowns, how many pence and pounds?
Anſwer, 3270 d.—13 L. 12 *s.* 6 *d.*

4. In 8174 pence, how many farthings, pounds and guineas?
Anſwer, 32696 qrs.—34 L. 1 s. 2 d.—31 guineas 9 s. 2 d.

5. In 1918 groats, how many ſhillings, moidores, and farthings?
Anſwer, 639 *s.* 4 *d.*—23 moidores—18 *s.* 4 *d.*—30688 qrs.

6. In 91 *l.* how many ſhillings, guineas, pence and farthings?
Anſwer, 1820 *s.*—86 guineas 14 *s.*—21840 *d.*—37360 qrs.

7. In 84 guineas, how many moidores and pounds?
Anſwer, 65 moidores 9 *s.*—88 L. 4 *s.*

8. In 841 *l.* how many guineas, crowns and ſixpences?
Anſwer, 800 guineas, 20 *s.*—3364 crowns.—33640 ſixpences.

9. Change 183 marks into pounds.
Anſwer, L. 122.

11. Change 84 pounds into marks.
Anſwer, 126 marks.

Of AVOIRDUPOIS WEIGHT.

1. In 7 cwt. 1 qr. 16 lb. of tobacco, how many lb?
Anſwer, 828 lb.

2. In 2 T. 17 cwt. 3 qr. of iron, how many lb?
Anſwer, 6468 lb.

3. In 16 lb. 11 oz. 12 dr. how many drams?
Anſwer, 4284 drams.

4. In 828 lb. how many quarters, and hundred weight?
Anſwer, 29 qrs. 16 lb.—7 cwt. 1 qr. 16 lb.

5. In 17864 lb. how many tons?
Anſwer, 7 T. 19 cwt. 2 qr.

6. In 4284 drams, how many lb?
Anſwer, 16 lb. 11 oz. 12 dr.

Of TROY WEIGHT.

1. How many pennyweights of ſilver are there in a tankard that weighs 2 lb. 9½ oz.?
Anſwer, 670 dwts.

2. In 178 oz. how many pennyweights and grains?
Anſwer, 3560 dwts.—85440 gr.

3. In 6 ingots of ſilver, each weighing $31\frac{1}{2}$ ounces, how many pennyweights?
Anſwer, 3780 dwts.

4. In 81746 grains of gold, how many pounds?
Anſwer, 14 lb. 2 oz. 6 dwts. 2 gr.

5. In 85440 grains, how many ounces?
Anſwer, 178 oz.

6. In 4783 pennyweights, how many pounds?
Anſwer, 19 lb. 11 oz. 3 dwts.

Of APOTHECARIES WEIGHT.

1. How many grains are there in $7\frac{3}{4}$ lb.?
Anſwer, 44640 grains.

2. In 2 lb. 7 ℥. 3 ʒ. 2 ℈. 16 gr. how many grains?
Anſwer, 15116 gr.

3. In 81704 grains, how many pounds?
Anſwer, 14 lb. 2 ℥. 1 ʒ. 2 ℈. 4 gr.

4. In 15116 grains, how many pounds?
Anſwer, 2 lb. 7 ℥. 3 ʒ. 2 ℈. 16 gr.

Of CLOTH MEASURE.

1. In 84 yards, how many quarters and nails?
Anſwer, 336 qrs.—1344 na.

2. In 14 pieces of cloth, each $27\frac{1}{4}$ yards, how many yards, quarters and nails?
Anſwer, $381\frac{1}{2}$ yds.—1526 qrs.—6104 na.

3. In 748 ells French, how many ells Engliſh, yards, quarters, and nails?
Anſwer, 897 ells 3 qrs.—1122 yds.—4488 qrs:—17952 na.

4. In 1344 nails, how many quarters and yards?
Anſwer, 336 qrs.—84 yds.

5. In

5. In 4748 qrs. how many yards, ells Eng. and ells Fr.?
Anſwer, 1187 yds.—949 E E. 3 qrs.—791 ells Fr. 2 qrs.

6. In 20004 nails, how many ells Flemiſh?
Anſwer, 1667 ells Flemiſh.

Of LONG MEASURE.

1. In 14 miles, how many yards, poles, and furlongs?
Anſwer, 24640 yards.—4480 poles—112 fur.

2. How many inches in length make half a mile?
Anſwer, 31680 inches.

3. How often will a wheel of 18 feet 8 inches circumference turn round in one mile?
Anſwer, 282$\frac{192}{224}$ turns.

4. In 570240 barley-corns in length, how many leagues?
Anſwer, 1 league.

5. In 846 inches, how many yards?
Anſwer, 23 yds. 1 ft. 6 inch.

6. In 95044 barley-corns in length, how many yards?
Anſwer, 880 yds. 0 ft. 1 in. 1 bc.

Of LAND *or* SQUARE MEASURE.

1. In 17 acres, how many roods and perches?
Anſwer, 68 roods.—2720 perches.

2. In 11 acres, 3 roods, and 17 poles, how many poles?
Anſwer, 1897 poles.

3. In 2720 perches, how many acres?
Anſwer, 17 acres.

4. In 4$\frac{1}{2}$ acres, how many ſquare yards?
Anſwer, 21780 yards.

5. In 84700 ſquare yards, how many acres?
Anſwer, 17$\frac{1}{2}$ acres.

6. In 16$\frac{1}{2}$ acres, how many ſquare chains?
Anſwer, 165 chains.

Of WINE MEASURE.

1. In $6\frac{1}{2}$ hogſheads of wine, how many quarts?
Anſwer, 1638 quarts.

2. In 84186 pints of wine, how many gallons and hogſheads?
Anſwer, 10523 gal.—167 hhds. 2 gal. 2 pts.

3. In 1 pipe of wine, how many gallons, quarts, and pints?
Anſwer, 126 gal. 540 qts.—1008 pints.

4. In 1 puncheon of rum, how many quarts?
Anſwer, 336 quarts.

Of WINCHESTER MEASURE.

1. 81 barrels of beer, how many quarts?
Anſwer, 11664 quarts.

2. In 11664 quarts, how many barrels and hogſheads of beer?
Anſwer, 81 barrels—54 hogſheads.

3. In 14 barrels of ale, how many gallons and pints?
Anſwer, 448 gallons—3584 pints.

4. In 3583 pints, how many barrels of ale?
Anſwer, 14 barrels.

Of DRY MEASURE.

1. How many pecks are there in 21 chaldrons of coals, each 36 buſhels?
Anſwer, 3024 pecks.

2. In 20 quarters of wheat how many buſhels and pecks?
Anſwer, 160 buſhels—640 pecks.

3. In 4184 pecks of coals how many chaldrons?
Anſwer, 29 cha. 2 buſh

4. In 895 pecks how many quarters of barley?
Anſwer, 27 qrs. 7 bu. 3 pe.

Of TIME.

4. In 2 years how many minutes?
Anſwer, 1051200

2. How

2. How many days and minutes are there from Auguſt 13th to December 2d, *incluſive?*

Anſwer, 111 days.—159840 minutes.

3. In 1051200 minutes how many weeks?

Anſwer, 104 weeks 2 days.

4. How many minutes are there in 42 weeks and 5 days?

Anſwer, 430560.

CASE I.

When it is required to know how many ſorts of coin of different value, and of equal number, are contained in any number of another, reduce the ſeveral ſorts of coin into one value, and in the loweſt denomination mentioned, and add them together for a diviſor; then reduce the money given into the ſame value for a dividend, and the quotient ariſing from the diviſion will be the equal number required.

N. B. Obſerve the ſame direction in Weights and meaſures.

1. In 84 guineas, how many crowns, ſhillings, and ſixpences, and of each an equal number.

A crown is 5 s. that is, – } 10 ſixpences
One ſhilling has 2 ſixpences.
1 ſixpence.

Diviſor—13 ſixpences.

84
21 ſhillings in one guinea.

1764 ſhillings.
2 ſixpences in a ſhilling.

Dividend—3528 ſixpences.

13)3528(271 Quotient.
26
92
91
18 Anſwer, 271 of each, and 5 ſixpences over.
13
5 Remainder.

2. A ſilver-ſmith has 273 ounces of ſilver, with which he would make table ſpoons to weigh $2\frac{1}{4}$ ounces, tea ditto $\frac{3}{4}$ ounce, and tea tongs 1 ounce and 8 pennyweights each, and of each an equal

equal number:——Pray how many of each ſort would he have?

Anſwer, 62 of each ſort and 4 dwts over.

3. If a hogſhead of wine were to be bottled off in two-quart, quart, and pint bottles, of each an equal number, pray how many bottles would there be?

Anſwer, 72 bottles of each.

4. How many guineas, half guineas, quarter guineas, and half-crowns (of each an equal number) are contained in 998 l. 18 s. 3 d?

Anſwer, 509 of each.

5. A gentleman orders 51 l. 3 s. to be diſtributed among 16 poor houſe-keepers, dividing them into four equal claſſes; the firſt claſs to receive half guineas, the ſecond quarter guineas, the third crowns, and the fourth half-crowns:—Pray what did each claſs receive a piece?

	l.	*s.*	*d.*
Anſwer, 1ſt claſs—	5	15	6

Of the SINGLE RULE *of* THREE DIRECT.

THE Rule of Three, or Direct Proportion, is when, of four numbers, the firſt bears the ſame *ratio* or proportion to the ſecond, as the third doth to the fourth.

In all queſtions belonging to this rule, three terms are given, and the fourth ſought, which four terms will be in the proportion above deſcribed.

Of the three terms given, two of them imply ſuppoſition, the other a demand: and in ſtating all queſtions belonging to this rule, that term on which the demand lies muſt be the *third* term; that which is of the ſame name or quality as the demand muſt be the *firſt* term; then will that term which is of the ſame name and quality as the number ſought, be the *middle* term.—Your queſtion being thus ſtated, the firſt and third terms muſt (if not already) be brought into one name, and the middle term into the loweſt denomination mentioned, and your queſtion may be anſwered by any of the three following theorems:

Theor. 1. Multiply the ſecond and third terms together, and divide the product by the firſt term; the quotient will be the anſwer to the queſtion, in the ſame name or value as the ſecond or middle term was reduced into.

Theor. 2. Divide the ſecond term by the firſt, and multiply the quotient into the third term, and the product will be the anſwer.

Theor. 3. Divide the third term by the firſt, then multiply that quotient into the ſecond term, and the product will be the anſwer.

N. B. See in the Double Rule of Three a new method of working queſtions in *that* and in *this* rule, extracted from the Scots Magazine.

1. If 4 lb. of tobacco coſt 7 s. what will 28 lb. coſt at the ſame rate?

The ſtating, and work by Theor. 1.

lb.	*s.*	*lb.*	
As 4	: 7	:: 28	: the anſwer.

7

4)196

49 s.=L. 2 : 9. Anſwer.

Again—By inverting the order of the above queſtion, it will be,

2. If 7 s. will buy 4 lb. of tobacco, how much will 2 l. 9 s. buy at the ſame rate?

Anſwer, 28 lb.

AGAIN,

3. If 28 lb. of tobacco be worth 2 l. 9 s. how much may I buy for 7 s?

Anſwer, 4 lb.

AGAIN,

4. Suppoſe 2 l. 9 s. will buy 28 l. of tobacco, what will 4 lb. of the ſame tobacco coſt?

Anſwer, 7 s.

N. B. The three laſt queſtions are only the firſt *varied*, being put purely to ſhew how any queſtion in this rule may be inverted.—*Note* alſo, that all the three Theorems are equally true; but the firſt is moſt general and uſually practiſed: the two laſt may be of ſingular uſe in the Rules of Fellowſhip, when either the ſecond or third term can be divided by the firſt.

5. If 1 bole of peace be worth 19 s. 6 d. I demand the value of 123 boles?

Anſwer, 119 L. 18 s. 6 d.

The ſtating.

B.	*s.*	*d.*	*B.*
As 1 :	19	6 : :	123 :

12 pence in 1 ſhilling.

234 pence.
Multiply by 123 the third term.

702
2808

12)28782 pence.

2$\frac{1}{4}$0)2398 : 6 ſhillings.

Anſwer, L. 119 : 18 : 6.

Note, 1. If you look at the ſtating, you will ſee, that the firſt and third terms are of one kind; and that the demand of the queſtion lies on the third.

2. That the firſt and third terms are of one denomination, or value, and need not be reduced; but that the middle term, being given in ſhillings and pence, was obliged to be brought into pence.

3. That as the firſt term is unity, or 1, we need not divide by it, becauſe the Quotient would be the ſame as the Dividend: therefore, the ſecond and third terms having been multiplied together, the product is the anſwer in pence, becauſe the middle term was reduced into pence, which are afterwards brought into pounds; and the value of 123 boles is found to be 1191. 18s. 6d.

4. According to this rule the *ratio* is thus: As 1 bole is to 19s. 6d. ſo is 123 boles to 1191. 18s. 6d.--That is,

B.	*s.*	*d.*	*B.*	*l.*	*s.*	*d.*
As 1 :	19	6 : :	123 :	119	18	6

where the product of the means is equal to the product of the extremes.

6. If I am to pay 3$\frac{1}{2}$d. *per* week for 1 ſheep at turnips, what muſt I give *per* week for 347 ſheep?

Anſwer, 5l. 1s. 2$\frac{1}{4}$d.

The ſtating.

Sh.	*d.*			*Sh.*
As 1 :	3$\frac{1}{2}$	:	:	347 :

7. If 53 boles of peaſe coſt 49l. 6d. what coſt 1 bole?

Anſwer, 18s. 6d.

8. If my income be 300 guineas *per annum*, I deſire to know what I may ſpend *per* day, ſo that I may lay up 100 l. at the year's end?

Anſwer, L. 0 : 11 : $9\frac{1}{4}$ $\frac{175}{365}$ *per* day.

Note, 1. You muſt firſt ſubtract 100l. from 300 guineas.
2. There being 365 days in a year, your queſtion muſt next be thus ſtated:

D.	*Guin.*		*L.*	*D.*	
As 365	: 300	–	100	: : 1	: the anſwer.

9. If my ſalary be 35 l. 12 s. 10 d. *per annum*, what does it amount to *per* week?

Anſwer, L. 0 : 13 : $8\frac{1}{2}$ *per* week.

The ſtating.

W.	*L.*	*s.*	*d.*	*W.*	
As 52	: 35	12	10	: : 1	: the anſwer above.

Note, As there are 52 weeks and 1 day in a year you will get the true anſwer to the above queſtion by the following *ratio*:

D.	*L.*	*s.*	*d.*	*D.*	*s.*	*d.*	
As 365	: 35	12	10	: : 7	: 13	$8\frac{18}{365}$	the true anſwer.

10. Admit my income to be 13 s. $8\frac{18}{365}$ d. *per* week, what is it *per annum?*

Anſwer, L. 35 : 12 : 10.

The ſtating.

D.	*s.*	*d.*		*D.*	
As 7	: 13	$0\frac{18}{365}$	: :	365	: the anſwer above.

Note, 1. You muſt firſt reduce the middle term into pence.

2. You muſt multiply by 365, (the third term) and add to the product the 18 which remain; and remember always to do ſo in ſimilar caſes.

3. You muſt divide by 7, the firſt term, and the Quotient will be the anſwer in pence, which muſt then be brought into pounds.

11. If I am to give $3\frac{1}{4}$ d. *per* week at turnips for 1 ſheep, what muſt I pay for 900 for 1 week?

Anſwer, L. 12 : 3 : 9.

12. At 3 d. *per* week for 1 ſheep at turnips, what muſt I pay for 725 for 3 weeks?

Anſwer, L. 27 : 3 : 9.

Note, 1. This queſtion muſt be ſtated like ſixth; to which I refer the ſcholar.

2. As

2. As the fourth term, ariſing from the above ſtating, will be the anſwer for 1 week only, the ſcholar muſt then multiply by 3, and the product will be the anſwer for 3 weeks.

13. Bought a ſack of hops, containing 2 Cwt. 3 qrs. 14 lb. for ſeven guineas and ſeven pence, pray what did they ſtand me in *per* lb.

Anſwer, $5\frac{1}{2}$ d.

14. If 1 Ton of iron coſt 17 l 10 s. what did it coſt *per* lb. ?

Anſwer, 1 d. $\frac{3}{4}$ $\frac{1}{2}$ qr.

15. If 1 lb. of iron coſt 1 d. $\frac{3}{4}$ $\frac{1}{2}$ qr. what is that *per* Cwt. and *per* Ton?

Anſwer, L. 0 : 17 : 6 *per* Cwt.—L. 17 : 10 s. *per* T.

16. If 32 yards of cloth coſt 2 l. 10 s. 8 d. what coſt $2\frac{1}{2}$ yards ?

Anſwer, L. 0 : 3 : $11\frac{1}{2}$.

17. If $2\frac{1}{2}$ yards of cloth coſt 3 s. $11\frac{1}{2}$ d. what coſt 32 yds ?

Anſwer, 2 : 10 : 8.

18. I was employed as a ſurveyor on the 20th day of January 1772, 'till the 1ſt of November *incluſive* :—Pray what did my wages amount to, at 6 s. 6 d. *per* day?

Anſwer, L. 93 : 5 : 6.

19. If 1 ell of cloſt 3 s. 8 d. I demand the value of 11 pieces, each whereof meaſures $31\frac{3}{4}$ yards ?

Anſwer, L. 51 : 4 : $5\frac{1}{2}$ $\frac{2}{5}$.

20. If 1 ell of cloth coſt 3 s. 8 d. I demand the value *per* yard?

Anſwer, L. 0 : 2 : $11\frac{1}{5}$

21. If $3\frac{3}{4}$ yards of cloth coſt 8 s. $1\frac{1}{2}$ d. what is the value of 6 pieces, each whereof meaſures $32\frac{1}{4}$ yards ?

Anſwer, L. 20 : 19 : 3.

22. If the carriage of $7\frac{1}{2}$ cwt. coſt me 14 s. 6 d. what muſt I pay for the carriage of 2 T. 15 cwt. 3 qr. 14 lb. the ſame diſtance?

Anſwer, L. 5 : 8 : 0 $\frac{1}{4}$ $\frac{168}{840}$.

23. John told Harry, that his purſe and money were worth two guineas and ſeven pence, but that the money was worth ſix times as much as the purſe :—Pray how much was there in it ?

Anſwer, L. 1 : 16 : 6.

24. A merchant bought 2 lots of tea, that weighed together 3 cwt. 1 qr. 17 lb. neat weight, for 98 l. 14 s. 6 d.—their difference in reſpect of weight was 1 qr. 25 lb. and of price 5 l. 12 s. 6 d.—Pray what was their reſpective weights and values ?

	Cwt. qr. lb.	*L. s. d:*
Anſwer.—1ſt lot,—	1 3 21	coſt 52 3 6
2d lot,—	1 1 24	coſt 46 11 0

25. My

25. My income is 2 s. 8 d. *per* day:—Pray what does it amount to in a year?

Anſwer, L. 48 . 13 : 4.

26. What is the value of a ſilver tankard that weighs 2 lb. 10 oz. 11 dwts. at 5 s. 9 d. *per* ounce?

Anſwer, L. 9 : 18 : $7\frac{3}{4}$ $\frac{16}{40}$.

27. If a merchant owe 1245 l. 10 s. and his effects amount only to 949 l. 18 s. 6 d.—Pray what muſt each creditor receive in the pound?

Anſwer, L. 0 : 15 : $3\frac{111}{24491}$.

28. If the diſtance from London to York be 197 miles, I demand how many times a wheel will turn round in performing the journey, whoſe circumference is $14\frac{1}{4}$ feet?

Anſwer, $72993\frac{117}{171}$ times.

29. If $\frac{7}{8}$ths of a ſhip be worth 907 l. 0 s. 6 d. what is the value of the whole?

Anſwer, L. 1036 : 12 : 0.

30. The whole value of a ſhip is 1039 l. 14 s. I demand how much $\frac{3}{32}$nds are worth?

Anſwer, L. 97 : 9 : $5\frac{1}{4}$

31. A farm, containing 379 acres 3 roods 5 poles, is let at 15 s. 8 d. *per* acre:—Pray what is the yearly rent of that farm?

Anſwer, L. 297 : 9 : 10 : $\frac{3}{4}$ $\frac{1}{2}$.

32. What quantity of ſoap may be bought for 53 guineas 4s. 6d. at the rate of 2 l. 6 s. 8 d. *per* cwt.

Anſwer, 23 cwt. 3 qrs. 22 lb.

33. How many yards of cloth may be bought for 27 l. 11 s. whereof $7\frac{1}{2}$ yards coſt 1 l. 7 s. $2\frac{1}{4}$d?

Anſwer, 152 yards.

34. A merchant failing in trade, owes in all 2716 l. and has in money and effects 1810 l. 13 s. 4 d.—Pray what will each creditor receive in the pound, ſuppoſing his effects delivered to them?

Anſwer, L. 0: 13 : 4.

35. What will 5 caſks of prunes come to, each weighing 2 cwt. 3 qrs. 12 lb. at 2 l. 13 s. 8 d. *per* cwt.?

Anſwer, L 38 : 6 : 8.

36. What will 3 qr. 3 na. of brocade coſt, at 3 l. 17 s. 6d. *per* yard.

Anſwer, L. 3 : 12 : 7 : $\frac{3}{4}$ $\frac{1}{2}$.

37. What

37. What will the tax of 917 l. 17 s. 6 d. amount to, at 3 s. 9 d. *per* pound?

Anſwer, L. 172 : 2 : 0 : $\frac{1}{4}$ $\frac{1}{2}$.

38. How much muſt be paid for 61 qrs. 7 buſhels of corn, at 1 l. 17 s. 4 d. *per* quarter?

Anſwer, L. 115 : 10 : 0.

39. If 152 yards of cloth coſt 27 l. 11 s. how many yards may I buy for 1 l. 7 s. 2$\frac{1}{4}$ d?

Anſwer, 7$\frac{1}{2}$ yards.

40. If the tax upon 917 l. 17 s. 6 d. amount to 172 l. 2 s. 0 d. $\frac{1}{4}$ $\frac{1}{2}$ qr.—Pray what is it *per* pound?

Anſwer, L. 0 : 3 : 9.

41. If 23 cwt. 3 qr. 22 lb. of ſoap coſt 55 l. 17 s. 6 d. how much may I buy for 2 l. 6 s. 8 d?

Anſwer, 1 cwt.

42. If 5 caſks of prunes, each weighing 2 cwt. 3 qr. 12 lb. coſt 38 l. 6 s. 8 d. I demand the value *per* cwt.?

Anſwer, L. 2 : 13 : 8.

43. How many yards of brocade can I buy for 95 l. 18 s. 1$\frac{1}{2}$ d. when 3 qrs. 3 na. coſt 3 l. 12 s. 7 d. $\frac{3}{4}$ $\frac{1}{2}$ qr?

Anſwer, 24$\frac{3}{4}$ yards

44. A merchant failing in trade, paid 13 s. 4 d. in the pound to his creditors, to whom he was indebted 2716 l.:—Pray what ſum did he pay them?

Anſwer, L. 1810 : 13 : 4.

45. What coſt 45$\frac{1}{2}$ groſs of buttons, at 7$\frac{1}{2}$ d. *per* dozen?

Anſwer, L. 17 : 1 : 3.

Of the RULE *of* THREE INVERSE,

OR,

RECIPROCAL PROPORTION.

RECIPROCAL PROPORTION is when the third term bears the ſame *ratio* to the firſt, as the ſecond does to the fourth, or number ſought.

Therefore, the leſs the third term is, in reſpect to the firſt, the greater will the fourth term be, in reſpect to the ſecond. When

more

more requires leſs, or leſs requires more, then the terms are in reciprocal proportion, and belong to the inverſe rule.

RULE. State your queſtion in the ſame manner as (and obſerve the directions given) in the Rule of Three Direct; then multiply the firſt and ſecond terms together, and divide their product by the third term: the quotient will be the anſwer, in the ſame name as the middle term was reduced into.

EXAMPLES.

1. If 16 men can build a wall in three days, how many days muſt 8 men require to do the ſame work, at the ſame rate of working?

Men.		*Days.*		*Men.*	*Days.*
As 16	:	3	: :	8	:

3

8)48

Anſwer, 6 days:—That is, 8 men can do the ſame in 6 days, as 16 men can do in 3 days.

By the above it may be obſerved, that, as 8 men require a longer time to build the wall, than 16 men, at the ſame rate of working; conſequently, the queſtion is in Inverſe Proportion.

2. How much in length, that is 4 inches broad, will make a ſquare foot?

Anſwer, 36 inches.

3. If when wheat is at 34 s. the bole or 6 buſhels, the ſixpenny loaf weigh 3 lb. what ought it to weigh when wheat is at 25 s. *per* bole?

Anſwer, 4 lb. $19\frac{1}{3}$ dwts.

4. If 16 men can build a houſe in 6 months, by working 15 hours *per* day, in what time will the ſaid men do it, when they work only 9 hours *per* day?

Anſwer, 10 months.

5. A board is 48 inches long, how much in breadth muſt there be to make $1\frac{3}{4}$ ſquare foot?

Anſwer, $5\frac{1}{4}$ inches.

6. How many yards of ſhalloon that is $\frac{3}{4}$ wide, will line 37 yards of broad cloth that is $1\frac{3}{4}$ yards wide?

Anſwer, $86\frac{1}{3}$ yards.

7. *A* borrowed of *B* 50l. for 4 months; how long ought *A* to lend *B* 40 l. to requite his kindneſs?

Anſwer, 5 months.

Of the DOUBLE RULE *of* THREE,

OR,

COMPOUND PROPORTION.

THE Double Rule of Three, or Compound Rule, may conſiſt of 5, 7, 9, 11, *&c.* numbers.

To work queſtions in this rule, obſerve the following directions:—

That number which is of the ſame kind as the number ſought, muſt be the laſt term: then take any two of the other numbers which are of one kind; and if more be required, ſet the greater in the ſecond place, and the leſs in the firſt; but if leſs be required, let the leſs ſtand in the ſecond, and the greater in the firſt place: When theſe three numbers are properly ſtated, take two others of one kind that remain in the queſtion, and compare them with the laſt number, ſo as to find whether they require a greater or a leſs anſwer; place them accordingly, that is, if more be required, ſet the greater, with four points after it, immediately before thoſe already ſtated, and the leſs antecedent to it, with two points between them; but if leſs be required, place them in the contrary poſition. —Proceed thus with every two remaining numbers, till all ſtand in one continued line.

Place *A* over the firſt, third, fifth, ſeventh, *&c.* numbers, and call them *Antecedents;* and *C* over the ſecond, fourth, ſixth, *&c.* numbers, which call *Conſequents.* This being done, multiply all the antecedents into one another for your firſt number, and all the conſequents for your ſecond: then will your proportion be, As the product of the Antecedents is to the product of the Conſequents, ſo is the laſt term to the anſwer of your queſtion.

EUCLID's *Elements*, V. 12.

1. If 100 l. in 12 months gain 5 l. intereſt, what will 300 l. gain in 9 months?

The ſtating.

A	*C*	*A*	*C*		*Anſwer.*
L.	*L.*	*M.*	*M.*	*L.*	
100 :	300 : :	12 :	9 : :	5 :	
12	9				
1200 :	2700 : :	5 :			
	5				
12|00)135|00					

L. 11 : 5 : 0. Anſwer.

OR,

A	C	A	C	*Anſwer.*
M.	*M.*	*L.*	*L.*	
12 :	9 : :	100 :	300 : : 5 :	
100			9	
1200	:		2700 : : 5 :	*L. s.* 11 5 as before.

Then As

2. If 300 l. gain 22 l. 10 s. in 18 months, what will 100 l. gain in 6 months?

Anſwer, 2 l. 10 s.

3. If 9 men build a wall 20 feet long, 3 feet thick, and 12 feet high, in 5 days; how many men muſt be employed to build a wall 180 feet long, 6 feet thick, and 8 feet high, in 40 days?

The ſtating.

A	C	A	C	A	C	A	C	
ft.hi.	*ft.h.*	*ft.th.*	*ft.th.*	*Days.*	*Days.*	*ft.lo.*	*ft.lo.*	*men.*
12 :	8 : :	3 :	6 : :	40 :	5 : :	20 :	180 : :	9 :
				3			5	
				120			900	
				12			6	
				1440			5400	
				20			8	
				28800	:		43200 : :	9 :
							9	

288\|00)3888\|00(13$\frac{144}{288}$ Anſwer.

N. B. In

N. B. In ſtating your queſtions, after you have found the laſt term, which muſt always be of the ſame name as the number ſought, you next proceed from the right hand to the left, to ſtate every two of the remaining numbers; and it is no matter which you take firſt, if they be only of one name. This will plainly appear, from placing the numbers of the laſt queſtion in a different order.

A	C	A	C	A	C	A	C	
ft. th.	*ft. th.*	*ft. lo.*	*ft. lo.*	*ft. hi.*	*ft. hi.*	*days.*	*days.*	*men.*
3 :	6 ::	20 :	180 ::	12 :	8 ::	40 :	5 ::	9 :

20 — 8

240 — 40

3 — 180

720 — 7200

40 — 6

Then, As 28800 : 43200 : : 9 :

9

288|00)388|00(13$\frac{144}{288}$ Anſwer.

288

1008

864

144

The above is an excellent method to work queſtions in the Single Rule of Three, particularly thoſe in Exchange, as may be ſeen by the following example.

4. How many yards of cloth can I buy for 20 l. if I give 6 s. 8 d. for 5 yards? Anſwer, 300 yds.

The ſtating.

s. d.	*L.*	*yds.*
As 6 8	: 20	: : 5 :
12	240 pence in a pound.	
Then, As 80	: 4800	: : 5 :

5

8|0)2400|0

Anſwer, 300 yards.

N. B. To perform queſtions by this method, the third number of your ſtating muſt always be of the ſame name or quality as the number ſought.—Next, conſider whether this number ſhould be more or leſs than the third: if more, let the greater of the other two numbers be the middle term, and the leſs the firſt; but if the fourth number ought to be leſs than the third, then give the leſs the ſecond place, and the greater the firſt. The queſtion being thus ſtated, the proportion will be, As the firſt term is to the ſecond, ſo is the third to the fourth, or number ſought.

EUCLID's *Elements*, V. 14.

Note, The firſt and ſecond terms muſt always be brought into one name, and the third into the loweſt mentioned; then proceed as in the common method, by multiplying the ſecond and third terms together, and dividing the product by the firſt:—the Quotient will be the anſwer in the ſame name as the third term was reduced into.

N. B. Queſtions in the Double Rule of Three, which have only five terms given, to find a ſixth, (ſome whereof being compounded) are ſolved as eaſily by two ſtatings after the common method.—As, for example,

5. I am poſſeſſed of a bill of exchange, value 87 l. 12 s. 6 d. which has yet 18 days to run, (that is, 18 days before it be due):—Pray how much muſt I receive from my banker who diſcounts this draught for me, allowing him $4\frac{1}{2}$ L. *per cent. per annum*?

Anſwer, L. 87 : 8 : $7\frac{1}{2}$.

Firſt ſtating.

L.	*L. s.*	*L. s. d.*	*L. s. d.*	
As 100	: 4 10	: : 87 12 6	: 3 18 $10\frac{1}{4}$	the intereſt of 87 l. 12 s. 6 d. for 1 year.

Second ſtating.

To find the intereſt of the above ſum for 18 days, ſay,

D.	*L. s. d.*	*D. s. d.*	
As 365 :	3 18 $10\frac{1}{4}$	: : 18 : 3 $10\frac{1}{2}$	the intereſt of the above bill for 18 days; which being ſubtracted from 87 l. 12 s. 6 d. leaves 87 l. 8 s. $7\frac{1}{2}$ d. the *anſwer*.

6. What principal will gain 234 l. in 8 years, at $4\frac{1}{2}$ L. *per cent. per annum*?

Anſwer, L. 650.

7. If 63 s. be the wages of 6 men for 9 days, what will be the wages of 21 men for 12 days?

Anſwer, L. 14 : 14 : 0.

8. What is the intereſt of 750 l. for 12 weeks, at 5 l. *per cent. per annum*?

Anſwer, L. 8 : 13 : 0 $\frac{3}{4}$ $\frac{36}{52}$.

9. If

9. If 2875 lb. of beef ſerve 250 ſeamen 18 days, how many lb. will ſerve 200 ſeamen 27 days?

Anſwer, 3450 lb.

10. When wheat was at 5 s. *per* buſhel, the three-penny loaf weighed 18 oz what muſt be paid for 2 lb. 3 oz. when wheat ſhall be at 6 s *per* buſhel?

Anſwer, L. 0 : 0 : $5\frac{1}{4}\frac{9}{15}$.

Of PRACTICE.

PRACTICE is a more compendious method of finding the value of goods, having the price of unity, or 1 yard, &c. than by the Rule of Three.

Before the queſtions hereafter given can be wrought, the following Table muſt be perfectly gotten by heart.

The TABLE.

Parts of a ſhilling.

d.		
6	is	$\frac{1}{2}$
4	—	$\frac{1}{3}$
3	—	$\frac{1}{4}$
2	—	$\frac{1}{6}$
$1\frac{1}{2}$	—	$\frac{1}{8}$
1	—	$\frac{1}{12}$
$\frac{3}{4}$	—	$\frac{1}{16}$
$\frac{1}{2}$	—	$\frac{1}{24}$
$\frac{1}{4}$	—	$\frac{1}{48}$

Parts of 2 ſhillings.

d.		
1	is	$\frac{1}{24}$
$1\frac{1}{2}$	—	$\frac{1}{16}$
2	—	$\frac{1}{12}$
3	—	$\frac{1}{8}$
4	—	$\frac{1}{6}$
6	—	$\frac{1}{4}$
8	—	$\frac{1}{3}$

Parts of a pound.

s.	*d.*		
10	0	is	$\frac{1}{2}$
6	8	—	$\frac{1}{3}$
5	0	—	$\frac{1}{4}$
4	0	—	$\frac{1}{5}$
3	4	—	$\frac{1}{6}$
2	6	—	$\frac{1}{8}$
1	8	—	$\frac{1}{12}$
1	4	—	$\frac{1}{15}$
1	3	—	$\frac{1}{16}$
1	0	—	$\frac{1}{20}$
0	10	—	$\frac{1}{24}$
0	8	—	$\frac{1}{30}$
0	6	—	$\frac{1}{40}$
0	5	—	$\frac{1}{48}$
0	4	—	$\frac{1}{60}$
0	3	—	$\frac{1}{80}$
0	$2\frac{1}{2}$	—	$\frac{1}{96}$
0	2	—	$\frac{1}{120}$
0	$1\frac{1}{2}$	—	$\frac{1}{160}$
0	1	—	$\frac{1}{240}$

Parts of a cwt.

qr.	*lb.*		
2	0	is	$\frac{1}{2}$
1	0	—	$\frac{1}{4}$
0	16	—	$\frac{1}{7}$
0	14	—	$\frac{1}{8}$
0	8	—	$\frac{1}{14}$
0	7	—	$\frac{1}{16}$
0	4	—	$\frac{1}{28}$

Parts of half a cwt.

lb.		
28	is	$\frac{3}{4}$
14	—	$\frac{1}{4}$
8	—	$\frac{1}{7}$
7	—	$\frac{1}{8}$

Parts of a quarter of a cwt.

lb.		
14	is	$\frac{1}{2}$
7	—	$\frac{1}{4}$
4	—	$\frac{1}{8}$
2	—	$\frac{1}{14}$

Parts of a ton.

Cwt.	*qr.*		
10	0	is	$\frac{1}{2}$
5	0	—	$\frac{1}{4}$
4	0	—	$\frac{1}{5}$
2	2	—	$\frac{1}{8}$
2	0	—	$\frac{1}{10}$
1	1	—	$\frac{1}{16}$
1	0	—	$\frac{1}{20}$

Parts of 240.

180	is	$\frac{3}{4}$
120	—	$\frac{1}{2}$
80	—	$\frac{1}{3}$
60	—	$\frac{1}{4}$
40	—	$\frac{1}{6}$

Parts of 480.

360	is	$\frac{3}{4}$
160	—	$\frac{1}{3}$

A TABLE *of* DISCOUNT *per cent.*

L.	s.	d.		L.	s.	d.	
2½ *per cent* is	0	6	in a pound.	17½ *per cent.* is	3	6	in a pound.
5	1	0		20	4	0	
7½	1	6		22½	4	6	
10	2	0		25	5	0	
12½	2	6		30	6	0	
15	3	0		35	7	0	

CASE I.

When the price of 1 *yard, ell, pound weight,* &c. *is any even number of ſhillings under* 40 ;—multiply the given quantity by half the price, and double the firſt figure of the product for ſhillings : —the reſt of the product will be pounds.

N. B. If the price be 2 s. you need only double the unit figure for ſhillings ; the other figures will be pounds.

To prove QUESTIONS *in* PRACTICE.

Work them by the Rule of Three Direct, by Compound Multiplication, or by varying the order of them.

EXAMPLES.

1. What will 174 yards of cloth coſt, as 2 s. *per* yard?
Anſwer, L. 17 : 8 : 0.

Note, The above is done by ſaying, twice 4 (the unit figure) is 8; the other figures, *viz.* 17, are pounds.

2. What will 68¼ yards coſt, at 2 s. *per* yard?
Anſwer, L. 6 : 17 : 6.

N. B. Before I double the unit figure, *viz.* 8, I conſider that ¾ of a yard, at 2 s. *per* yard, will amount to 1 s. 6 d. then I double 8, which makes 16 s. and 1s. 6 d. added makes 17 s. 6 d. the other figure is pounds.

PROOF

PROOF *by the* RULE *of* THREE.

	yd.	*s.*	*yds.*
As	1	: 2	: : 68¾ :
	4		4
Quarters.	4		275 Quarters.

Multiply by 2 the middle term.

4)550

2|0)137 : 6

L. 6 : 17 : 6 Anſwer.

Queſtions. *Yds.*	Anſwers. *L. s. d.*	Queſtions. *Yds.*	Anſwers. *L. s. d.*
3. 84½ at 2 s. *per* yard	8 9 0	12. 69½ 18 s *per* yard	62 11 0
4. 57¼ — 2 s —	5 14 6	13. 73 — 18 s —	65 14 0
5. 107 — 4 s —	21 8 0	14. 91½ — 22 s —	100 13 0
6. 49½ — 6 s —	14 17 0	15. 35 — 26 s —	45 10 0
7. 73 — 8 s —	29 4 0	16. 65 — 28 s —	91 0 0
8. 63¼ — 10 s —	31 12 6	17. 29 — 30 s —	43 10 0
9. 157¼ — 12 s —	94 7 0	18. 17½ — 32 s —	28 0 0
10. 163 — 14 s —	114 2 0	19. 14 — 34 s —	23 16 0
11. 49½ — 16 s —	39 12 0	20. 35 — 36 s —	63 0 0

N. B. The ſix laſt queſtions ſhould be performed at one operation, by caſe the 8th of Compound Multiplication; and whenever there is a quarter, a half, or three quarters of a yard, *&c.* find the value thereof firſt in your mind, and add it to the double of the unit figure of the firſt multiplication.—But leſt any perſon ſhould think the above method too burdenſome to the memory, I have wrought the 12th queſtion below in a plainer manner.

What coſt 69½ yards of cloth, as 18 s. *per* yard?
Multiply by 9 half the price.

L. 62 2 0 Value of 69 yards.
0 9 0 Value of ½ yard.

L. 62 11 0 Anſwer.

CASE II.

When the price wants an even part of 2 *s.*—firſt find the value of the whole quantity at 2 s. *per* lb. yard, *&c.* then divide it by *that even part* which is wanting, and ſubtract this Quotient from the value at 2 s. :—the remainder will be the anſwer.

EXAMPLES.

EXAMPLES.

1. What will 89½ yards coſt, at 22 d. *per* yard?

		l.	*s.*	*d.*	
2 d.	1/12	8	19	0	value, at 2 s. *per* yard.
		0	14	11	ditto, at 2 d. *per* yard.

Anſwer, L. 8 4 1 value at 1 s. 10 d. *per* yard.

Queſtions. *Yds.*	Anſwers. *L.* *s.* *d.*	Queſtions. *Yds.*	Anſwers. *L.* *s.* *d.*
2. 49 at 22 d. *per* yard	4 9 10	5. 123 at 18 d *per* yard	9 4 6
3. 81¾ — 21 d –	7 3 0¾	6. 716¼ — 18 d –	53 14 4½
4. 74 — 21 d –	6 9 6	7. 317 — 16 d –	21 2 8

N. B. In dividing, the remainder is always of the ſame name as the dividend; which muſt be reduced into the next inferiour denomination, and then divided as before.

CASE III.

When the price is more than, and the pence are an even part of, 2 *s.*—firſt find the value of the quantity at 2 s. *per* yard; which value being divided by *that even part* which the pence are of 2 s. and this Quotient added thereto, the ſum will be the anſwer.

EXAMPLES.

1. What will 57¼ yards of cloth coſt at 2 s. 1½ d. *per* yard?

57¼ Yards.

1½ d.	1/12	L. 5	14	6	value, at 2 s. *per* yard.
		add 0	7	1¾ ½	ditto, at 1½ d. ditto.

Anſwer, L. 6 1 7¾ ½ value, at 2 s. 1½ d. *per* yard.

Queſtions. *Ells.*	Anſwers. *L.* *s.* *d.*	Queſtions *Ells.*	Anſwers. *L.* *s.* *d.*
2. 69½ at 2 s 2 d *per* ell	7 10 7	6. 31 at 2 s 3 d *per* ell	3 9 9
3. 141 — 2 s 2 d –	15 5 6	7 85½ — 2 s 3 d –	9 12 4½
4. 78¾ — 2 s 8 d –	10 10 0	8. 46¾ — 2 s 4 d –	5 9 1
5. 142 — 2 s 8 d –	18 18 8	9. 95½ — 2 s 8 d –	12 14 8

CASE IV.

When the price is an even part of 2 *s.*—firſt find the value of the quantity at 2 s. *per* yard, ell, *&c.* then draw a line underneath, and divide it by *that even part*:—This quotient will be the anſwer.

EXAMPLE

EXAMPLES.

1. What will 132½ yards of cloth coſt, at 2 d. *per* yard?

		L.	s.	d.	
2 d.	1/12	13	5	0	value at 2 s. *per* yard.

Anſwer L. 1 2 1 value at 2 d. *per yard.*

By CASE *5th*, COMPOUND MULTIPLICATION.

	L.	s.	d.	
	0	11	0½	is the value at 1 d. *per* yard.
Multiply by			2	

L. 1 2 1 Anſwer.

Queſtions.			Anſwers.			Queſtions.			Anſwers.		
Yds.			L.	s.	d.	*Yds.*			L.	s.	d.
2. 173	at 2 d	*per* yd.	1	8	10	6. 71¾	at 6 d.	*per* yd.	1	15	10½
3. 82	— 3 d	–	1	0	6	7. 107½	— 8 d	–	3	11	8
4. 57¾	— 4 d	–	0	19	3	8. 376¾	— 8 d	–	12	11	2
5. 163¼	— 6 d	–	4	1	1½	9. 90¾	— 3 d	–	1	4	11¼

CASE V.

When the price is an even part of one ſhilling,—find the value of the given quantity at 1 s. *per* yard, ell, *&c.* then draw a line underneath, and divide it by *that even part*—this quotient will be the anſwer.

EXAMPLES.

1. What will 182½ yards coſt, at 1½ d. *per* yard?

		s.	d.	
1½ d.	1/8	182	6	Value of 182½ yards, 1 s. *per* yard.
	2|0	2|2	9¾	

Anſwer, L. 1 2 9¾ Value of 182½ yards, at 1½ d. *per* yard.

Or thus:

		L.	s.	d.	
1½ d.	1/8	9	2	6	Value at 1 s. *per* yard.

Anſwer, L. 1 2 9¾ Value at 1½ d. *per* yard.

N. B. This laſt method is the beſt.

Queſtions. Yds.			Anſwers. L.	s.	d.	qrs.
2. 93¾ at 1½	per yd.		0	11	8	11/22
3. 327½ —1d	–		1	1	3	½
4. 83¼ —1d	–		0	6	11	¼
5. 196 —2d	–		1	12	8	

Queſtions. Yds.			Anſwers. L.	s.	d.
6. 1109¾ at 2d.	per yd.		9	4	11½
7. 2108¼ —3d	–		26	7	0¾
8. 918½ —3d	–		11	9	7½
7. 728¼ —4d	–		12	2	9

CASE VI.

When the price is more than, and the pence are an even part of, 1 *s.*—find the value of the quantity at 1 s. *per* yard, *&c.* which value being divided by *that even part* which the pence are of 1 s. and this quotient added thereto:—the ſum will be the anſwer.

EXAMPLES.

1. What will 157¾ yards of cloth coſt, at 1 s. 1 d. *per* yard?

	s.	d.	
| 1 d. | 1/12 |	157	9	Value at 1 s. *per* yard.
Add	13	1¾	Value at 1 d. *per* yard.
2|0)	17|0	10¾	
Anſwer, L.	8	10 : 10¾	Value at 1 s. 1 d. *per* yard.

Or thus:

	L.	s.	d.	
| 1 d. | 1/12 |	7	17	9	Value at 1 s. *per* yard.
	0	13	1¾	Value at 1 d. *per* yard.
Anſwer, L.	8	10	10¾	Value at 1 s. 1 d. *per* yard.

N. B. This is the ſhorteſt and beſt method.

Queſtions. Yds.	s.	d.		Anſwers. L.	s.	d.
2. 204 at	1	1	per yd.	11	1	0
3. 111¾ —1	2		–	6	10	4½
4. 51¼ —1	2		–	2	19	9½

Queſtions. Yds.	s.	d.		Anſwers. L.	s.	d.
5. 817½ at	1	1½	per yd	45	19	8¼
6. 87 —1	1½		–	4	17	10½
7. 92½ —1	3		–	5	15	7½

CASE VII.

When there are pence in the price, beſides an even number of ſhillings under 20, *which pence are an even part of* 1 *s.*—firſt find the value of the quantity at the ſhillings *per* yard, &c. according to caſe the 1ſt; then ſuppoſe the quantity to ſtand as ſhillings *per* yard, divide it by *that even part* which the pence are of

1 s.

1 s. and this quotient being added to the value before found, the ſum will be the anſwer.

EXAMPLES.

1. What will $82\frac{3}{4}$ yards of cloth coſt, at 4 s. 3 d. *per* yard?

3 d.	$\frac{1}{4}$	*Yds.* $82\frac{3}{4}$
		2

L. 16 11 0 Value of $82\frac{3}{4}$ yards, at 4 s. *per* yard.
20 s. $8\frac{1}{4}$ d. = 1 0 $8\frac{1}{4}$ Value of ditto, at 3 d. *per* yard.

Anſwer, 17 11 $8\frac{1}{4}$ Value of ditto, at 4 s 3 d. *per* yard.

Queſtions.				Anſwers.		
Yds.		*s.*	*d.*	*L.*	*s.*	*d.*
$19\frac{3}{4}$	at	8	3 *per* yd.	8	2	$11\frac{1}{4}$
$25\frac{1}{2}$	—10	4	–	13	3	6
35	—12	$1\frac{1}{2}$	–	21	4	$4\frac{1}{2}$
19	—22	$1\frac{1}{2}$	–	21	0	$4\frac{1}{2}$

Queſtions.				Anſwers.		
Yds.		*s.*	*d.*	*L.*	*s.*	*d.*
34	at	16	1 *per* yd.	27	6	10
$28\frac{1}{4}$	—16	2	–	22	16	$8\frac{1}{2}$
$216\frac{3}{4}$	—16	4	–	177	0	3
$41\frac{1}{4}$	— 4	2	–	8	11	$10\frac{1}{2}$

CASE VIII.

When the price is any odd number of ſhillings under 40,—find the value of the greateſt even number contained in the price, according to caſe the 1ſt, and add thereto the value of the quantity at 1 s. *per* yard, which ſum will be the anſwer: or, multiply the quantity by the price, according to caſe the 1ſt or 8th in Simple Multiplication, and divide the product by 20, the quotient will be the anſwer: or, laſtly, if the price be under 13 s. find the value of the quantity at 1 s. *per* yard, and multiply it by the number of ſhillings in the price of 1 yard: the product will be the anſwer.

EXAMPLES.

1. What will 122 yards of cloth coſt, at 3 s. *per* yard?

L.	*s.*	*d.*	
12	4	0	Value at 2 s. *per* yard, by Caſe 1ſt.
6	2	0	Value at 1 s. *per* yard.

L. 18 6 0 Anſwer.

Or thus:

	L.	s.	d.	
	6	2	0	Value of 122 yards, at 1 s. *per* yard.
Multiply by		3		
Product is, L.	18	6	0	Anſwer.

2. What will 719 yards coſt, at 15 s. *per* yard?

7

L.	503	6	0	Value at 14 s. *per* yard.
	35	19	0	Value at 1 s. *per* yard.
Anſwer, L.	539	5	0	Value at 15 s. *per* yard.

Queſtions.				Anſwers.		
	Yds.		s.	L.	s.	d.
3.	706¼	at	3 *per* yd.	105	18	9
4.	81½	—	3 —	12	4	6
5.	57	—	7 —	19	19	0
6.	83¾	—	7 —	29	6	3
7.	126	—	9 —	56	14	0
8.	39½	—	9 —	17	15	6
9.	175	—	11 —	96	5	0

Queſtions.				Anſwers.		
	Yds.		s.	L.	s.	d.
10.	66¼	at	11 *per* yd.	36	8	9
11.	105¾	—	13 —	68	14	9
12.	719	—	15 —	539	5	0
13.	1000	—	17 —	850	0	0
14.	75¾	—	19 —	71	19	3
15.	210	—	29 —	304	10	0
16.	19	—	35 —	33	5	0

CASE IX.

When the price is an even part of a pound,—find the value of the given quantity, at one pound *per* yard, &c. then draw a line underneath, and divide it by *that part*:—the quotient will be the anſwer.

EXAMPLES.

1. What will 108¾ yards of cloth coſt, at 2 s. 6 d. *per* yard?

s.	d.		L.	s.	d.	
2	6	⅛	108	15	0	Price at 1 L. *per* yard.
Anſwer, L.			13	11	10½	Price at 2 s. 6 d. *per* yard.

Queſtions.

Queſtions.				Anſwers.		
	Yds.	*s.*	*d.*	*L.*	*s.*	*d.*
2.	318¼ at	3	4 *per* yd.	53	0	10
3.	29¾ —	3	4 —	4	19	2
4.	82 —	5	0 —	20	10	0
5.	72¼ —	5	0 —	18	1	3
6.	207 —	6	8 —	69	0	0
7.	57½ —	6	8 —	19	3	4

Queſtions.				Anſwers.		
	Yds.	*s.*	*d.*	*L.*	*s.*	*d.*
8.	202¼ at	1	3 *per* yd	12	12	9¾
9.	92½ —	2	6 —	11	11	3
10.	71¾ —	10	0 —	35	17	6
11.	51¼ —	10	0 —	25	12	6
12.	93¾ —	1	3 —	5	17	2¼
13.	129¼ —	2	6 —	16	3	1½

CASE X.

When the price wants an even part of a pound, firſt find the value of the given quantity at 1 *l. per* yard, then divide it by *that even part* which is wanting, and ſubtract this quotient therefrom; —the remainder will be the anſwer.

EXAMPLES.

1. What will 83¼ yards coſt, at 18 s. 4 d. *per* yard?

s.	*d.*		*l.*	*s.*	*d.*	
1	8.	¹/₁₂	83	5	0	Value at 1 *l. per* yard.
			6	18	9	Value at 1 s. 8 d. *per* yard.
		L.	76	6	3	Value at 18 s. 4 d. *per* yard.

Queſtions.				Anſwers.		
	Yds.	*s.*	*d.*	*L.*	*s.*	*d.*
2.	281 at	18	4 *per* yd	257	11	8
3.	74¾ —	18	4 —	68	10	5
4.	56¼ —	17	6 —	49	4	4½
5.	502½ —	17	6 —	439	13	9

Queſtions.				Anſwers.		
	Yds.	*s.*	*d.*	*L.*	*s.*	*d.*
6.	82¼ at	16	8 *per* yard	68	10	10
7.	103¾ —	13	4 —	69	3	4
8.	26¼ —	18	9 —	24	12	3¼
9.	101½ —	18	8 —	94	14	8

CASE XI.

When the price is ſhillings, pence and farthings, and not an even part of a pound;—multiply the given quantity by the ſhillings in the price of 1 yard, *&c.* and take parts of parts for the pence from the ſame; then add them together, and their ſum will be the anſwer in ſhillings: Or, you may let the given quantity ſtand as pounds *per* yard; then draw a line underneath, and take parts of parts therefrom; which add together, and their ſum will be the anſwer.

N. B. I adviſe the learner, to work the following examples both ways, by which means he will be able to diſcover the moſt conciſe method of performing ſuch queſtions in buſineſs as may fall under this caſe.

Ex:

EXAMPLES.

1. What will 107¼ yards coſt, at 6 s. 3 d. *per* yard?

3d.	¼		*s.*	*d.*	
		107	3		Value of 107¼ yards, at 1 s. *per* yard.
			6		
		643	6		Value of ditto, at 6 s. *per* yard.
		26	9¾		Value of ditto, at 3 d. *per* yard.
		2|0)67|0	3¾		
Anſwer, L.		33	10	3¾	Value of ditto, at 6 s. 3 d. *per* yard.

Or thus:

3d.	¼		*L.*	*s.*	*d.*	
			5	7	3	Value of 107¼ yards at 1 s. *per* yd.
Mutiply by					6	
			32	3	6	Value of ditto, at 6 s. *per* yard.
			1	6	9¾	Value of ditto, at 3 d. *per* yard.
Anſwer, L.			33	10	3¾	

By the latter part of this caſe:

s.	*d.*			*L.*	*s.*	*d*	
5	0	¼		107	5	0	Value of 107¼ yards, at 1 *l. per* yard.
1	3	¼					
				26	16	3	Value of ditto, at 5 s. *per* yard.
				6	14	0¾	Value of ditto, at 1 s. 3 d. *per* yard.
Proof, L.				33	10	3¾	Value of ditto, at 6 s. 3 d. *per* yard.

Queſtions				Anſwers.		
Yds.	*s.*	*d.*		*L.*	*s.*	*d.*
73 at	5	8	*per* yd.	20	13	8
85¼ —	7	3	–	30	18	0¾
104 —	16	7	–	86	4	8
391 —	3	2½		62	14	5½
503 —	4	9	–	119	9	3
307 —	9	6	–	145	16	6

Queſtions.				Anſwers.		
Yds.	*s.*	*d.*		*L.*	*s.*	*d.*
321¾ —	19	5	–	312	7	3¾
51½ —	7	10	–	20	3	5
63 —	12	4½	–	38	19	7½
510 —	18	7	–	473	17	6
70 —	13	8	–	47	16	8
57¾ —	12	11	–	37	5	11¼

CASE.

CASE XII.

When the price of a yard, ell, &c. is pounds, ſhillings and pence,—firſt multiply the quantity by the pounds; and if the ſhillings and pence be an even part of a pound, divide the given quantity by *that part*, and add the quotient to the product for the anſwer:—But if they be not an even part of a pound, you muſt take parts of parts, and add them together, as before.—*Or*, Reduce the pounds and ſhillings into ſhillings, and multiply the quantity thereby; after which, take parts for the pence, and add the whole together:—their ſum will be the anſwer in ſhillings.

N. B. **Let the learner work the following queſtions both ways.**

EXAMPLES.

1. What will 104 yards of brocade coſt, at 2l. 3s. 4d. *per* yard?

		L.	*s.*	*d.*
3s. 4d.	$\frac{1}{6}$	104	0	0
				2
		208	0	0
		17	6	8
Anſwer, L.		225	6	8

N. B. **The greateſt part of the following queſtions may be wrought moſt expeditiouſly, by reducing the price into ſhillings.**

	Queſtions.					Anſwers.		
	Yds.	*L.*	*s.*	*d.*		*L.*	*s.*	*d.*
2.	37 at	4	6	8	*per* yard is,	160	6	8
3.	$81\frac{1}{4}$ —	3	2	6	— —	253	18	$1\frac{1}{2}$
4.	59 —	5	16	8	— —	344	3	4
5.	42 —	3	14	6	— —	156	9	0
6.	$37\frac{3}{4}$ —	1	18	9	— —	73	2	$9\frac{3}{4}$
7.	31 —	5	12	6	— —	174	7	6
8.	$84\frac{1}{4}$ —	2	14	8	— —	230	5	8
9.	71 —	3	19	$6\frac{1}{2}$	— —	282	7	$5\frac{1}{2}$
10.	52 —	4	7	9	— —	228	3	0
11.	61 —	2	13	3	— —	162	8	3
12.	$36\frac{3}{4}$ —	2	11	9	— —	95	1	$9\frac{3}{4}$

CASE XIII.

When the quantity is any number leſs than 1000, *and the price not more than* 12 *d.* per *yard*, &c.—find the value of the whole quanti-

ty

ty at 1 penny *per* yard, which may be done by dividing it by $1\frac{1}{2}$ *mentally*, ſetting down the quotient only in pounds, or ſhillings, or both: then multiply this ſum by the pence in the price of 1 yard, and the product will be the anſwer.

1. What will $823\frac{1}{2}$ yards coſt, at 5 d. *per* yard?

L.	s.	d.	
0	68	$7\frac{1}{2}$	Value at 1 d. *per* yard.
Or, 3	8	$7\frac{1}{2}$	Value of $823\frac{1}{2}$ yards, at 1 d. *per* yard.
Multiply by		5	
Product 17	3	$1\frac{1}{2}$	Value of ditto, at 5 d. *per* yard.

Queſtions.			Anſwers.		
Yds.	d.		L.	s.	d.
2. $309\frac{3}{4}$ at	3	per yd.	3	17	$5\frac{1}{4}$
3. 527 —	$6\frac{1}{4}$	–	13	14	$5\frac{3}{4}$
4. $157\frac{1}{4}$ —	11	–	7	4	$1\frac{3}{4}$
5. $906\frac{1}{2}$ —	10	–	37	15	5
6. $203\frac{3}{4}$ —	7	–	5	18	$6\frac{1}{4}$

Queſtions.			Anſwers.		
Yds.	d.		L.	s.	d.
7. 127 at	9	per yd.	4	15	3
8. 149 —	$11\frac{1}{2}$	–	7	2	$9\frac{1}{2}$
9. $38\frac{1}{2}$ —	$6\frac{3}{4}$	–	10	15	$8\frac{11}{22}$
19. $881\frac{3}{4}$ —	$10\frac{1}{2}$	–	38	11	$6\frac{11}{42}$
11. 754 —	$7\frac{1}{4}$	–	22	15	$6\frac{1}{2}$

CASE XIV.

When the price is ſuch a number of ſhillings and pence as, when reduced into pence, may be produced by any two numbers in the multiplication table, and when the quantity does not exceed 1000; —firſt find the value of the whole at 1 d. *per* yard, &c. according to the laſt caſe; then multiply this ſum by the component parts of the pence in the price, and the laſt product will be the anſwer.

EXAMPLES.

1. What will $208\frac{1}{4}$ yards of cloth coſt, at 7 s. 4 d. *per* yard?

L.	s.	d.	
0	17	$4\frac{1}{4}$	Value at 1 d. *per* yard.
		8	
6	18	10	Value at 8 d. *per* yard.
		11	
L. 76	7	2	Value at 88 d. or 7 s. 4 d. *per* yard.

N. B. In 7 s. 4 d. there are 88 pence; for which reaſon, I multiply by 8, and then by 11, becauſe 8 times 11 is 88.

Queſtions.

Queſtions. Yds. s. d.	Anſwers. L. s. d.	Queſtions. Yds. s. d.	Anſwers. L. s. d.
2. 237 at 1 2 *per* yd.	13 16 6	5. 814¼ – 5 10 *pr* yd	237 9 9½
3. 831 — 2 9 –	114 5 3	6. 163 — 3 9½ –	30 18 0½
4. 62 — 4 1 –	12 13 2	7. 900½ – 3 8¼ –	166 0 7½

CASE XV.

When the quantity is 240—As many pence as there are in the price of 1 yard, *&c.* ſo many pounds will the quantity amount to.

N. B. One farthing *per* yard will come to 5 s. a halfpenny to 10 s. and three farthings to 15 s.

EXAMPLES.

1. What will 240 yards coſt, at 1 s. 9¼ d. *per* yard.

L. 21 : 5 : 0 Anſwer

N. B. The price is 2 s. 9¼ d *per* yard:—Now, as in 1 s. 9 d. there are 21 pence, ſo the quantity, being 240, comes to 21 pounds; then, according to the ſame rule, the farthing *per* yard comes to 5 s.—Therefore, the anſwer to the queſtion is 21 l. 5 s.

Queſtions. Yds. s. d.	Anſwers. L. s. d.	Queſtions. Yds s. d.	Anſwers. L. s. d.
240 at 1 3¾ *per* yd	15 15 0	240 at 4 9¼ *per* yd	57 5 0
240¼ – 3 10 –	46 0 11½	240½ – 17 6 –	210 8 9
240 — 2 3¾ –	27 15 0	240— 8 3¾ –	99 15 0
240 — 3 11½ –	47 10 0	240¾ – 7 6 –	90 5 7½
240 — 0 7¾ –	7 15 0	240—11 3¾ –	135 15 0

CASE XVI.

When the quantity is not leſs than 228, *nor more than* 252,—firſt find the value of 240 yards, *&c.* according to the laſt Caſe; then multiply the price of 1 yard by the number *above* or *under* 240, and add or ſubtract this product from the value of 240 yards, as the queſtion may require; and the ſum, or remainder, will be the anſwer.

EXAMPLES.

1. What will 241 yards coſt, at 18 s. 4½ d. *per* yard?

	L.	s.	d.	
	220	10	0	Value of 240 yards.
Add	0	18	$4\frac{1}{2}$	Value of 1 yard.
Anſwer, L.	221	8	$4\frac{1}{2}$	Value of 241 yards.

2. What will 228 yards coſt, as 4s. $2\frac{1}{4}$d. *per* yard?

	L.	s.	d.	
	50	5	0	Value of 240 yards.
4s. $2\frac{1}{4}$d. multiplied by 12 =	2	10	3	Value of 12 yards.
Anſwer, L.	47	14	9	Value of 228 yards.

Queſtions.				Anſwers.		
Yds.	s.	d.		L.	s.	d.
242 at	1	$11\frac{3}{4}$	*per* yd –	23	18	$11\frac{1}{2}$
243 —	7	$2\frac{3}{4}$	–	87	16	$8\frac{1}{4}$
230 —	11	11	–	137	0	10
244 —	0	$11\frac{3}{4}$	–	11	18	11
245 —	4	$5\frac{1}{4}$	–	54	7	$2\frac{1}{4}$
246 —	2	$7\frac{1}{4}$	–	32	0	$7\frac{1}{2}$
$233\frac{1}{2}$	3	1	–	35	19	$11\frac{1}{2}$

Queſtions.				Anſwers.		
Yds.	s.	d.		L.	s.	d.
247 —	4	$8\frac{1}{2}$	–	58	2	$11\frac{1}{2}$
248 —	9	$1\frac{1}{4}$	–	112	17	10
249 —	4	$11\frac{1}{4}$	–	61	9	$5\frac{1}{4}$
250 —	4	$2\frac{1}{2}$	–	52	12	1
237 —	1	5	–	16	15	9
251 —	13	$6\frac{1}{2}$	–	169	18	$11\frac{1}{2}$
252 —	6	$10\frac{1}{4}$	–	86	7	3

CASE XVII.

When the quantity is 480—find the value of 240 yards, *&c.* by caſe the 15th, and multiply this ſum by 2:—the product will be the anſwer.

N. B. If the quantity be 12 over or under 480, proceed according to the directions given in the laſt Caſe.

EXAMPLES.

1. What will 480 yards coſt, at 1s. $8\frac{3}{4}$d *per* yard?

	L.	s.	d.	
	20	15	0	Value of 240 yards.
Multiply by		2		
Anſwer, L.	41	10	0	Value of 480 yards.

2. What will 492 yards coſt, at 2 s. $2\frac{1}{4}$ d. *per* yard?

L. s. d.

	L.	s.	d.	
26	5	0		Value of 240 yards.
		2		
53	10	0		Value of 480 yards.
Add	1	6	3	Value of 12 yards.
Anſwer, L.	53	16	3	Value of 492 yards.

N. B. Any perſon who is expert in figures may find the value (mentally) of 480 yards, almoſt as eaſy as 240, it being nothing more than doubling the amount of 240; which, when done, ſet down:—and if the quantity be over, or under 480, proceed as before directed to work the following queſtions.

Queſtions.				Anſwers.			Queſtions.				Anſwers.		
Yds.	s.	d.		Yds.	s.	d.	Yds.	s.	d.		Yds.	s.	d.
468 at	1	5½	*per* yd.	34	2	6	474 at	2	7	—	61	4	6
481 —	1	1¾	—	27	11	1¾	487 —	13	8½	—	333	15	11½
469 —	3	3	—	76	4	3	475 —	3	8¼	—	87	11	6¾
483 —	0	9¾	—	19	12	5¼	478 —	0	5¾	—	11	9	0½
471 —	12	2½	—	287	10	1½	489 —	0	10¼	—	20	17	8¼
472 —	2	2½	—	52	2	4	490 —	4	3¼	—	104	12	8½
485 —	1	11	—	46	9	7	471 —	4	7¼	—	113	0	7¾

CASE XVIII.

When the quantity is 160,—find the value of 480 yards, and divide it by 3:—the quotient will be the anſwer.

Note If there be 12 yards over or under 160, proceed as before directed.

EXAMPLES.

1. What will 160 yards coſt, at 2 s. 5 ½d. *per* yard?

	L.	s.	d.	
Divide by 3)	59	0	0	Value of 480 yards.
Anſwer, L.	19	13	4	Value of 160 yards.

2. What coſt 172 yards, at 3 s. 5½ d. *per* yard?

	L.	s.	d.	
Divide by 3)	83	0	0	Value of 160 yards.
	27	13	4	Value of 160 yards.
Add	2	1	6	Value of 172 yards.
				Anſwer, L. 29 14 10

Questions.				Answers.		
	Yds.	s.	d.	L.	s.	d.
3.	171 at	1	$9\frac{1}{4}$ *per* yd.	15	2	$9\frac{3}{4}$
4.	150—	3	$4\frac{3}{4}$ —	25	9	$4\frac{1}{2}$
5.	169—	1	$3\frac{1}{4}$ —	10	14	$9\frac{1}{4}$
6.	151—	2	$10\frac{1}{2}$ —	21	14	$1\frac{1}{2}$
7.	167—	1	$1\frac{1}{2}$ —	9	7	$10\frac{1}{2}$
8.	153—	1	$5\frac{1}{4}$ —	10	19	$11\frac{3}{4}$

Questions.				Answers.		
	Yds.	s.	d.	L.	s.	d.
9.	165 at	1	$7\frac{1}{2}$ *per yd*	13	8	$1\frac{1}{2}$
10.	155—	1	11 —	14	17	1
11.	163—	2	$5\frac{1}{2}$ —	20	0	$8\frac{1}{2}$
12.	157—	4	$9\frac{1}{4}$ —	37	9	$0\frac{1}{4}$
13.	161—	2	11 —	23	9	7
14.	159—	2	$11\frac{1}{2}$ —	23	10	$4\frac{1}{2}$

CASE XIX.

When the quantity is 120,—first find the value of 240 yards, then divide it by 2; and the quotient will be the answer.

Note, If there be 12 over or under 120, proceed as before directed.

EXAMPLES.

1. What will 120 yards cost, at 1 s. $2\frac{1}{2}$ d. *per* yard?

	L.	s.	d.	
Divide by 2)	14	10	0	Value of 240 yards.
Answer, L.	7	5	0	Value of 120 yards.

2. What cost 109 yards of cloth, at 3 s. $2\frac{1}{2}$ d. *per* yard?

	L.	s.	d.	
Divide by 2)	38	10	0	Value of 240 yards.
	19	5	0	Value of 120 yards.
Subtract	1	15	$3\frac{1}{2}$	Value of 11 yards.
Answer, L.	17	9	8	Value of 109 yards.

Questions.				Answers.		
	Yds.	s.	d.	L.	s.	d.
	130—	4	$3\frac{1}{4}$ *per* yd	27	15	$2\frac{1}{2}$
	109—	2	$4\frac{1}{2}$ —	12	18	$10\frac{1}{2}$
	131—	3	1 —	20	3	11
	129—	2	$2\frac{1}{2}$ —	14	4	$10\frac{1}{2}$
	111—	3	$2\frac{3}{4}$ —	17	18	$5\frac{1}{4}$
	127—	2	2 —	13	15	2

Questions.				Answers.		
	Yds.	s.	d.	L.	s.	d.
	113 at	1	$4\frac{3}{4}$ *per* yd	7	17	$8\frac{3}{4}$
	125—	5	$7\frac{1}{2}$ —	35	3	$1\frac{1}{2}$
	123—	4	$1\frac{1}{2}$ —	25	7	$4\frac{1}{2}$
	122—	3	3. —	19	16	6
	117—	3	$2\frac{1}{4}$ —	18	12	$11\frac{1}{4}$
	119—	13	1 —	77	16	11

CASE XX.

When the quantity is 80 *yards*, &c.—one third part of the value of 240 will be the answer.

N. B.

N. B. If there be 12 over or under, proceed as before directed; except when the quantity is found in the Multiplication-Table; for then case the 2d of Compound Multiplication will be more concise; or when the price is an even part of a pound, case the 9th of Practice is to be preferred.

EXAMPLES.

1. What cost 80 yards of cloth, at 6 s. 10 d. *per* yard?

	L.	s.	d.	
Divide by 3)	82	0	0	Value of 240 yards.
The quotient is L.	27	6	8	Value of 80 yards.

2. What cost 92 yards, at 7 s. 3 d. *per* yard?

	L.	s.	d.	
Divide by 3)	87	0	0	Value of 240 yards.
The quotient is	29	0	0	Value of 80 yards.
Add	4	7	0	Value of 12 yards.
Sum is L.	33	7	0	Value of 92 yards.

Questions.				Answers.		
Yds.	s.	d.		L.	s.	d.
3. 69 at 1	1	$\frac{3}{4}$	*per* yd	3	19	$0\frac{3}{4}$
4. 89— 1	2	$\frac{1}{4}$	—	5	5	$8\frac{1}{4}$
5. 87— 1	11	$\frac{1}{2}$	—	8	10	$4\frac{1}{2}$
6. 73— 2	2	$\frac{1}{2}$	—	8	1	$2\frac{1}{2}$
7. 86— 2	5		—	10	7	10
8. 74— 2	5	$\frac{1}{2}$	—	9	1	11

Questions.				Answers.		
Yds.	s.	d.		L.	s.	d.
9. 85 at 4	3	$\frac{1}{2}$	*per* yd	18	4	$9\frac{1}{2}$
10. 75— 2	10		—	10	12	6
11. 83— 3	10	$\frac{1}{4}$	—	15	19	$10\frac{3}{4}$
12. 76— 3	2	$\frac{1}{2}$	—	12	3	10
13. 78— 3	1	$\frac{1}{2}$	—	12	3	9
14. 79— 6	3		—	24	13	9

CASE XXI.

When the quantity is 60 *yards*,—one fourth of the value of 240 will the answer.

Note, If there be 12 over or under, proceed as before directed, and observe the exception made in the last case.

EXAMPLES.

1. What will 60 yards of cloth cost, at 1 s. $11\frac{1}{2}$ d. *per* yard?

	L.	s.	d.	
Divide by 4)	23	10	0	Value of 240 yards.
The quotient is L.	5	17	6	Value of 60 yards.

2. What

2. What will 69 yards coſt, at 2 s. $4\frac{3}{4}$ d. *per* yard?

	L.	s.	d.	
Divide by 4)	28	15	0	Value of 240 yards.
The quotient is	7	3	9	Value of 60 yards.
Add	1	1	$6\frac{3}{4}$	Value of 9 yards.
Sum is, L.	8	5	$3\frac{3}{4}$	Value of 69 yards.

Queſtions.				Anſwers.			Queſtions.				Anſwers.		
Yds.	s.	d.		L.	s.	d.	Yds.	s.	d.		L.	s.	d.
69 at	3	$1\frac{1}{2}$	*per* yd	10	15	$7\frac{1}{2}$	58 at	1	$7\frac{3}{4}$	*per* yd	4	15	$5\frac{1}{2}$
68—	3	1	–	10	9	8	57—	1	$5\frac{1}{2}$	–	4	3	$1\frac{1}{2}$
67—	2	11	–	9	15	5	52—	0	$11\frac{1}{2}$	–	2	8	9
65—	1	$5\frac{1}{4}$	–	4	13	$5\frac{1}{4}$	51—	1	$5\frac{1}{2}$	–	3	15	$4\frac{1}{2}$
62—	1	$9\frac{1}{2}$	–	5	11	1	49—	2	$11\frac{1}{4}$	–	7	3	$11\frac{1}{4}$
61—	1	$7\frac{1}{4}$	–	4	17	$10\frac{1}{4}$	60—	0	$4\frac{3}{4}$	–	1		39
59—	1	$7\frac{1}{2}$	–	4	15	$10\frac{1}{2}$	60—	3	$9\frac{1}{4}$	–	11	6	3

CASE XXII.

When the quantity is 180,—three-fourths of the value of 240 will be the anſwer.

EXAMPLES.

1. What will 180 yards of cloth coſt, at 3 s. $5\frac{1}{2}$ d. *per* yard?

	L.	s.	d.	
	41	10	0	Value of 240 yards.
Half the value of 240 yards, is	20	15	0	Value of 120 yards.
Half the value of 120 yards, is	10	7	6	Value of 60 yards.
Anſwer, L.	31	2	6	Value of 180 yards.

Queſtions.				Anſwers.			Queſtions.				Anſwers.		
Yds.	s.	d.		L.	s.	d.	Yds.	s.	d.		L.	s.	d.
2. 180 at	1	$3\frac{1}{2}$	*per* yd	11	12	6	7. 180 at	3	$5\frac{1}{4}$	*per* yd	30	18	9
3. 180—	5	$1\frac{1}{4}$	–	45	18	9	8. 182—	2	10	–	25	15	8
4. 180—	2	$5\frac{1}{4}$	–	21	18	9	9. 184—	1	11	–	17	12	8
5. 180—	2	$7\frac{3}{4}$	–	23	16	3	10. 178—	4	$3\frac{1}{2}$	–	38	3	11
6. 180—	2	$5\frac{1}{2}$	–	22	2	6	11. 176—	3	$10\frac{1}{2}$	–	34	2	0

CASE XXIII.

When the price of one hundred weight is of ſeveral denominations, and the quantity likewiſe,—multiply the price by the integers, that

is,

is, whole numbers, and take parts for the reſt from the price of an integer; which added together will be the anſwer.

EXAMPLES.

1. What will 11 Cwt. 3 qrs. 7 lb. of tobacco coſt, at 3 l. 16 s. 6 d. *per* Cwt?

qrs.	*lb.*		*L.*	*s.*	*d.*		*Cwt.*	*qr.*	*lb.*
2	0	½	3	16	6				
1	0	½			11				
0	7	¼							
			42	1	6	Price of	11	0	0
			1	18	3	Price of	0	2	0
			0	19	1½	Price of	0	1	0
			0	4	9¼ ½	Price of	0	0	7
Anſwer, L.			45	3	7¾ ½	Price of	11	3	7

	Queſtions.								Anſwers.		
	Cwt.	*qr.*	*lb.*			*L.*	*s.*	*d.*	*L.*	*s.*	*d.*
2.	9	1	16	tobacco, at		3	18	6 *per* cwt.	36	17	4-¼
3.	10	2	14	hops, at		4	17	8 *per* cwt.	51	17	8½
4.	16	0	22	ſoap, at		2	13	6 *per* cwt.	43	6	6 +
5.	15	3	18	tobacco, at		4	11	9 *per* cwt.	72	19	9½ ¾ +
6.	6	2	7	raiſins, at		2	19	3 *per* cwt.	19	8	9¾ ¾
	lb.	*oz.*									
7.	19	12		coffee, at		0	5	9 *per* lb.	5	13	6¾
	lb.	*oz.*	*dwt.*	*gr.*							
8.	14	10	12	8 ſilver, at		3	9	0 *per* lb.	51	7	0½ +
	oz.	*dwt.*	*gr.*								
9.	25	4	18	gold, at		3	12	6 *per* oz.	91	9	8½ ½
10.	217	16	5	ditto, at		4	4	6 *per* oz.	920	4	11¾ ½ +
	A.	*R.*	*Po.*								
11.	47	2	15	at	–	1	16	8 *per* acre	87	5	1-¼

CASE XXIV.

To find the diſcount of any invoice, or bill of parcels at any rate per cent.—multiply the pounds in the invoice by the amount of the diſcount of 1 pound at the rate *per cent.* and take parts for the ſhillings and pence; then add them together, and the ſum will be the diſcount required.

N. B. The diſcount for 1 pound at any rate *per cent.* may be ſeen in Practice Table, and ſhould be gotten by heart.

EXAMPLES.

1. What is the diſcount of an invoice, amounting to 53 l. 12 s. 6 d. at 7½ *L. per cent?*

OPE-

OPERATION.

	L.	s.	d.
The diſcount of 53 l. at 5 *per cent.* is, 53 s. or	2	13	0
The diſcount of ditto, at $2\frac{1}{2}$ *per cent.* is –	1	6	6
The diſcount of 10 s. being half a pound, is	0	0	9
The diſcount of 2 s. 6 d. being an eighth of a pound, is – – – – –	0	0	$2\frac{1}{4}$
The ſum is, L.	4	0	$5\frac{1}{4}$ Anſ.

N. B. Moſt of the queſtions in this caſe may be wrought mentally, or at moſt by ſetting down firſt the amount of the diſcount of the pounds, as above, then that of the ſhillings and pence; which being added together, will be the diſcount required.

2. What is the diſcount of a bill of parcels, amounting to 9 l. 17 s. 8 d. at $2\frac{1}{2}$ l. *per cent.?*

	L.	s.	d.
The diſcount of 9 l. is	0	4	6
The diſcount of 10 s. is	0	0	3
The diſcount of 6s. 8d. is	0	0	2
The diſcount of 1 s. is	0	0	$0\frac{1}{4}$
Anſwer, L.	0	4	$11\frac{1}{4}$

3. What is the diſcount of an invoice, amounting to 46 l. 3 s. 6 d. at $12\frac{1}{2}$ *per cent.?*

By Caſe 9th.

s.	d.		l.	s.	d.
2	6	$\frac{1}{8}$	46	3	6

L. 5 15 $5\frac{1}{4}$ Anſwer.

N. B. Having wrought the above queſtions, I dare ſay the learner will find no difficulty in ſolving the following.

4. What is the diſcount of an invoice amounting to 32 l. 14 s. 6 d. at 10 l. *per cent.?*

Anſwer, L. 3 : 5 : $5\frac{1}{4}$ $\frac{6}{10}$

5. What is the diſcount of an invoice amounting to 148 l. 15 s. $7\frac{1}{2}$ d. at 15 l. *per cent.?*

Anſwer, L. 22 : 6 : $4\frac{1}{2}$

6. What is the diſcount of an invoice amounting to 29 l. 11 s. 6 d. at $2\frac{1}{2}$ l. *per cent.?*

Anſwer, L. 12 : 11 : $9\frac{1}{4}$ $\frac{1}{2}$

7. What

7. What is the diſcount of an invoice amounting to 29 l. 11 s. 6 d. at $2\frac{1}{2}$ l. *per cent.?*

Anſwer, L. 0 : 14 : $9\frac{1}{4}$

8. What is the diſcount of an invoice amounting to 17 l. 14 s. at $12\frac{1}{2}$ l. *per cent.?*

Anſwer, L. 2 : 4 : 3

Of VULGAR FRACTIONS.

A FRACTION is a broken number, which expreſſes one or more parts of a whole number. There are two kinds, *Vulgar* and *Decimal.*

Of NOTATION *of* VULGAR FRACTIONS.

Notation of Fractions depends upon this ſuppoſition, that one whole thing, whatſoever it be, may be conceived diviſible into any number of equal parts.

Any two numbers placed thus, $\frac{7}{10}$, make a vulgar fraction; the upper number is called *Numerator*, and the lower *Denomiminator*, which denotes into how many parts a whole is divided: So, $\frac{1}{4}$ denotes one-fourth of 1.

N. B. The numerator is the remainder after diviſion, and the denominator the diviſor.

There are three ſorts of Vulgar Fractions, Proper, Improper, and Compound.

A Proper Fraction hath its numerator leſs than its denominator; as, $\frac{1}{4}$.

An Improper Fraction hath its numerator greater than its denominator; as, $\frac{8}{7}$.

A Compound Fraction is a fraction of a fraction, and is known by the prepoſition *of* between them, as, $\frac{2}{3}$ *of* $\frac{3}{4}$ denotes two-thirds of three-fourths.

Note, When an integer and a fraction are joined together, the term is, *a mixt number*; as, $6\frac{3}{4}$.

An EXPLANATION *of the* SYMBOLS *made use of in this Work.*

=	denotes	equality,	and is named,	is equal to.	Thus, 6+2= 8
+		addition,		*plus*, or more.	6−2= 4
−		ſubtraction,		*minus*, or leſs.	6×2=12
×		multiplicat.		into.	6÷2= 3
÷		diviſion,		by.	

REDUCTION *of* VULGAR FRACTIONS.

CASE I. *To abbreviate, or reduce Fractions to leſs terms.*

RULE. Divide the Numerator and Denominator by any number which will divide them without a remainder, ſo ſhall the quotients be the terms of a new fraction, equal in value to the former; and thus continue, 'till you have brought the fraction into its loweſt terms.

EXAMPLES.

1. Reduce $\frac{45}{72}$ to its leaſt terms.

$\frac{45}{72}=\frac{15}{24}=\frac{5}{8}$

2. Reduce $\frac{72}{216}$ to its leaſt terms.

3. Reduce $\frac{96}{240}$ to its leaſt terms.

4. Reduce $\frac{375}{1125}$ to its leaſt terms.

5. Reduce $\frac{250}{750}$ to its leaſt terms.

Note, A fraction may be brought to its leaſt terms at one diviſion, by dividing both terms by the greateſt common meaſure; which is thus found:

Divide the greater term by the leſs, and this diviſor by the remainder, and ſo on, till nothing remain:—the laſt diviſor will be the greateſt common meaſure.

6. Reduce $\frac{987}{3969}$ to its leaſt terms.

987)3969(4

Common meaſure, 21)987(47

147

147

Then, $\frac{987\div21}{3969\div21}=\frac{47}{189}$ Anſ.

7. Reduce $\frac{818}{8172}$ to its leaſt terms.

8. Reduce $\frac{209}{8777}$ to its leaſt terms.

9. Reduce $\frac{872}{1249}$ to its leaſt terms.

10. Reduce $\frac{36}{96}$ to its leaſt terms.

11. Reduce $\frac{1284}{8628}$ to its leaſt terms.

12. Reduce $\frac{648}{9824}$ to its leaſt terms.

CASE

CASE II. *To reduce fractions of different denomin'tions to a common denominator.*

RULE. Multiply each numerator into all the denominators (except its own), for a new numerator, and all the denominators together for a common denominator.

Note, A whole or integer number may be expreſſed like a fraction, by putting 1 for its denominator; thus, 6 is $\frac{6}{1}$.

EXAMPLES.

1. Reduce $\frac{3}{4}$ and $\frac{7}{12}$ to a common denominator.

Thus, $3 \times 12 = 36$ new numerator.
And, $7 \times 4 = 28$ new numerator.
Laſtly, $4 \times 12 = 48$ common denominator.
Thus then the fractions become,
$\frac{36}{48}$ and $\frac{28}{48} = \frac{9}{12}$ and $\frac{7}{12}$.

2. Reduce $\frac{1}{2}$, $\frac{2}{5}$ and $\frac{6}{8}$ to a common denominator.

3. Reduce $\frac{5}{7}$, $\frac{9}{11}$, $\frac{8}{14}$ and $\frac{12}{16}$ to a common denominator.

4. Reduce $\frac{6}{7}$, $\frac{2}{5}$, and 11 to a common denominator.

5. Reduce $\frac{1}{2}$, $\frac{3}{5}$, and $\frac{9}{11}$ to a common denominator.

6. Reduce $\frac{7}{12}$, $\frac{3}{17}$, $\frac{8}{9}$ and $\frac{31}{34}$ to a common denominator.

7. Reduce $\frac{2}{4}$, $\frac{3}{8}$, and $\frac{7}{25}$ to a common denominator.

CASE III. *To reduce a compound fraction to a ſingle one eqnivalent thereto.*

RULE. Multiply all the numerators continually together for a new numerator, and all the denominators for a new denominator.

N. B. It is beſt to expreſs the fraction in its leaſt terms.

EXAMPLES.

1. Reduce $\frac{1}{2}$ of $\frac{2}{4}$ of $\frac{3}{5}$ to a ſingle fraction.

$1 \times 2 \times 3 =$ Numerator $\frac{6}{40} = \frac{3}{20}$
$2 \times 3 \times 4 =$ Denominator

2. Reduce $\frac{3}{7}$ of $\frac{6}{8}$ of $\frac{9}{12}$ to a ſingle fraction.

3 Reduce $\frac{2}{7}$ of $\frac{4}{5}$ of 13 to a ſingle fraction.

4. Reduce $\frac{17}{5}$ of $\frac{1}{9}$ of 7 to a ſingle fraction.

5. Reduce $\frac{1}{2}$ of $\frac{2}{3}$ of $\frac{3}{4}$ of $\frac{4}{5}$ to a ſingle fraction.

6. Reduce $\frac{3}{7}$ of $\frac{8}{11}$ of 1 to a ſingle fraction.

CASE IV. *To reduce a mixt number to an improper fraction.*

RULE. Multiply the whole number by the denominator of the fraction, and to the product add the numerator; under which ſubjoin the denominator.

EXAMPLES.

1. Ruduce $3\ \frac{7}{11}$ to an improper fraction.
   $11 \times 3 = 33 + 7 = \frac{40}{}$ Numerator.
   Subjoin $\frac{}{11}$ Denominator.
2. Reduce $5\ \frac{1}{7}$ to an improper fraction.
3. Reduce $8\ \frac{17}{35}$ to an improper fraction.
4. Reduce $17\ \frac{3}{5}$ to an improper fraction.

CASE V. *To reduce an improper fraction to its proper terms.*

RULE. Divide the numerator by the denominator, and the quotient will be the whole number:—the remainder will be the numerator to the given denominator.

N. B. Theſe examples prove thoſe of the laſt Caſe.

EXAMPLES.

1. Reduce $\frac{40}{11}$ to a mixt number.
   $40 \div 11 = 3\frac{7}{11}$ Anſwer.
2. Reduce $\frac{36}{7}$ to a mixt number.
3. Reduce $\frac{297}{35}$ to a mixt number.
4. Reduce $\frac{87}{5}$ to a mixt number.

CASE VI. *To reduce a fraction of one denomination to the fraction of another, but greater, retaining the ſame value.*

RULE. Reduce the given fraction to a compound one, by comparing it with all the denominations between it and that denomination you would reduce it to; laſtly, reduce this compound fraction to a ſingle one by caſe 3d, and it will be done.

EXAMPLES.

1. Reduce $\frac{2}{5}$ of a penny to the fraction of a guinea.

   By comparing it, it becomes, $\frac{2}{5}$ of $\frac{1}{12}$ of $\frac{1}{21}$; which reduced by caſe 3d, will be, $2 \times 1 \times 1$ = Numerator $\frac{2}{}$
   And, - - $5 \times 12 \times 21$ = Denominat. $\frac{}{1260}$

2. Reduce $\frac{3}{4}$ of a penny to the fraction of a pound.
   Anſwer, $\frac{3}{960}$ L.

3. Re-

3. Reduce $\frac{3}{5}$ of an ounce to the fraction of a lb. avoirdupois.
Anſwer, $\frac{3}{80}$ lb.

4. Reduce $\frac{2}{9}$ of a penny to the fraction of a pound Sterling.
Anſwer, $\frac{2}{2160}$ L.

5. Reduce 27 d. to the fraction of a pound.
Anſwer, $\frac{27}{240}$ L.

6. Reduce 11 lb. to the fraction of a ton.
Anſwer, $\frac{11}{2240}$ ton.

7. Reduce $\frac{3}{5}$ of a pound to the fraction of a guinea.
$\frac{3}{5}$ L. $= \frac{3 \times 20}{5}$ *s.* $= \frac{3 \times 20}{5 \times 21}$ *guin.* $= \frac{60}{105}$ guinea.

CASE VII. *To reduce a fraction of one denomination to the fraction of another, but leſs, retaining the ſame value*

RULE Multiply the given numerator by the parts of the denominations between it and that denomination you would reduce it to, for a new numerator, which place over the given denominator.

N. B. This caſe prove the laſt.

EXAMPLES.

1. Reduce $\frac{2}{1260}$ of a guinea to the fraction of a penny.

By comparing it, the fraction will be,

$\frac{2}{1260}$ of $\frac{21}{1}$ of $\frac{12}{1}$; Then, by caſe 3d,
$2 \times 21 \times 12 = 504$;
And, $1260 \times 1 \times 1 = 1260$ which reduced, $= \frac{2}{5}$

2. Reduce $\frac{3}{960}$ of a pound to the fraction of a penny.
Anſwer, $\frac{3}{4}$ d.

3. Reduce $\frac{3}{80}$ of a lb. avoirdupois to the fraction of an ounce.
Anſwer, $\frac{3}{5}$ oz.

4. Reduce $\frac{2}{2160}$ of a pound Sterling to the fraction of a penny.
Anſwer, $\frac{2}{9}$ d.

5. Reduce $\frac{27}{240}$ of a pound to the fraction of a penny.
Anſwer, $\frac{27}{1} = 27$ d.

6. Reduce $\frac{11}{2240}$ of a ton to the fraction of a lb.
Anſwer, $\frac{11}{1}$ lb. $= 11$ lb.

7. Reduce $\frac{60}{105}$ of a guinea to the fraction of a pound.
Anſwer, $\frac{3}{5}$ L.

CASE

CASE VIII. *To find the value of proper fractions in the known parts of coin, weight, meaſure, &c.*

RULE. Multiply the numerator by the integer, and divide by the denominator; if any thing remain, multiply it by the next inferiour denomination, and divide as before.

EXAMPLES.

1. The value of $\frac{3}{5}$ of a pound Sterling is required.

20
3
—
5)60
—
12 s. Anſwer.
—

2. What is the value of $\frac{6}{14}$ of a ſhilling?
Anſwer, $6\frac{3}{4}$ d. $\frac{6}{14}$.

3. What is the value of $\frac{6}{7}$ of a lb. avoirdupois?
Anſwer, 13 oz. $11\frac{3}{7}$ dr.

4. What is the value of $\frac{6}{11}$ of a guinea?
Anſwer, 11 s. $5\frac{1}{4}$ d $\frac{9}{11}$.

5. What is the value of $\frac{7}{16}$ of a ton?
Anſwer, 8 cwt. 3 qrs.

6. Required the value of $\frac{3}{8}$ of a guinea.

3
21
—*s. d.*
8)63(7 $10\frac{1}{2}$ Anſwer.
56
—
7
12
—
8)84(10 *d.*
80
—
4
4
—
8)16(2 *qr.*
16
—

7. What

7. What is the value of $\frac{3}{5}$ of an ell Engliſh?
Anſwer, 3 quarters.

8. What is the value of $\frac{3}{14}$ of a mile?
Anſwer, 1 fu. 28 po. $3\frac{2}{14}$ yds.

9. What is the value of $\frac{5}{3\,2}$ of a pound Sterling?
Anſwer, 3 s. $1\frac{1}{2}$ d.

CASE IX. *To reduce any given quantity to the fraction of any greater denomination of the ſame kind.*

RULE. Reduce the given quantity to the loweſt term mentioned, for a numerator; then reduce the integral part to the ſame term, for a denominator; which will be the fraction required.

Note, 1. If there be a fraction given with the ſaid quantity, it muſt yet be reduced to the denominative parts thereof, adding thereto the numerator. 2. This caſe proves the laſt.

EXAMPLES.

1. Reduce 12 s. to the fraction of a pound.
Anſwer, $\frac{3}{5}$ L.

2. Reduce $6\frac{3}{4}$ d. $\frac{6}{14}$ to the fraction of a ſhilling.
Anſwer, $\frac{4}{7}$ ſhill.

3. Reduce 13 oz. $11\frac{3}{7}$ dr. to the fraction of a lb. avoirdup.
Anſwer, $\frac{6}{7}$ lb.

4. Reduce 11 s. $5\frac{1}{4}$ d. $\frac{9}{11}$ to the fraction of a guinea.
Anſwer, $\frac{6}{11}$ guinea.

5. Reduce 7 s. $10\frac{1}{2}$ d. to the fraction of a guinea.
Anſwer, $\frac{3}{8}$ guinea.

6. Reduce 3 qrs. to the fraction of an ell Engliſh.
Anſwer, $\frac{3}{5}$ ell.

7. Reduce 1 fu. 28 po. $3\frac{2}{14}$ yds. to the fraction of a mile.
Anſwer, $\frac{3}{14}$ mile.

8. Reduce 8 cwt. 3 qrs. to the fraction of a ton.
Anſwer, $\frac{7}{16}$ ton.

9. Reduce 3 s. $1\frac{1}{2}$ d. to the fraction of a pound Sterling.
Anſwer, $\frac{5}{3\,2}$ L.

Of

Of ADDITION *of* VULGAR FRACTIONS.

RULE. Reduce the given fractions to a common denominator; then add all the numerators together for a new numerator, under which ſubſcribe the common denominator.

EXAMPLES.

1. Add $\frac{1}{3}$ and $\frac{6}{7}$ together
Sum, $1\frac{4}{21}$.

2. Add $\frac{5}{9}$ and $7\frac{1}{2}$ together.
Sum, $8\frac{1}{18}$.

3. What's the ſum of $\frac{1}{2}$, $\frac{3}{4}$, and $\frac{5}{8}$?
Anſwer, $1\frac{7}{8}$.

4. What's the ſum of 8, $\frac{3}{5}$, and $\frac{17}{4}$?
Anſwer, $12\frac{17}{20}$.

Note, In order to find the following ſums, the given fractions muſt firſt be reduced to their proper values by Caſe 8th of Reduction, and then added together, as in common arithmetic.

5. Add $\frac{6}{11}$ of a guinea to $\frac{3}{4}$ of a pound Sterling.
Sum, L. 1 : 6 : $5\frac{1}{4}\frac{9}{11}$.

6. What is the ſum of $\frac{3}{5}$ of a pound and $\frac{3}{8}$ of a guinea?
Anſwer, L. 0 : 19 : $10\frac{1}{2}$.

7. What is the ſum of $\frac{5}{16}$ of a ton, and $\frac{11}{12}$ of a Cwt.?

Cwt.	*qr.*	*lb.*	*oz.*	*dr.*
Anſwer, 7	0	18	10	$10\frac{2}{3}$

8 What is the ſum of $\frac{2}{3}$ of $\frac{4}{5}$ of 19 yards, added to $\frac{3}{5}$ of an ell Engliſh?
Anſwer, 10 yds. 3 qr. $2\frac{2}{15}$ na.

9. What is the ſum of $\frac{1}{3}$ of a day and $\frac{5}{48}$ of an hour?
Anſwer, 8 ho. 6 min. 15 ſec.

10. What is the ſum of $\frac{3}{16}$ of a chaldron and $\frac{9}{12}$ of a buſhel?
Anſwer, 7 buſh. 2 pecks.

Of SUBTRACTION *of* VULGAR FRACTIONS.

RULE. Reduce the given fractions to a common denominator, and ſubtract the leſs numerator from the greater, and place the difference over the common denominator.

Note, In ſubtracting mixt numbers, when the lower fraction (the ſubtrahend) is greater than the upper fraction (the minuend), ſubtract the numerator of the ſubtrahend from the denominator, and to that difference add the numerator of the minuend, and carry one to the integer of the ſubtrahend.

Ex-

EXAMPLES.

1. From $\frac{3}{4}$ take $\frac{2}{7}$.
Remains, $\frac{13}{28}$.

2. From $\frac{2}{3}$ take $\frac{9}{15}$.
Remains $\frac{1}{15}$.

3. From $\frac{8}{10}$ take $\frac{9}{25}$.
Remains, $\frac{11}{25}$.

4. From $15\frac{2}{7}$ take $\frac{2}{5}$ of $11\frac{1}{3}$.
Remains, $10\frac{79}{105}$.

5. From $\frac{2}{5}$ of 7, take $1\frac{8}{9}$.
Remains, $\frac{41}{45}$.

6. From $14\frac{1}{4}$ take $\frac{2}{3}$ of 17.
Remains, $2\frac{11}{12}$.

N. B. The following queſtions muſt firſt be reduced to their proper quantities by caſe 8th of Reduction.

7. From $\frac{3}{5}$ of a pound take $\frac{2}{6}$ of a ſhilling.
Remains, 11 s. 8 d.

8. From $\frac{3}{7}$ of a guinea take $\frac{1}{3}$ of a pound.
Remains, 2 s. 4 d.

9. From $\frac{9}{11}$ of a ton take $\frac{2}{3}$ of a cwt.
Remains, 15 cwt. 2 qr. $22\frac{2}{33}$ lb.

10. From $\frac{1}{2}$ of a chaldron take $\frac{19}{24}$ of a buſhel.
Remains, 17 bu. $0\frac{5}{8}$ pe.

Of MULTIPLICATION *of* VULGAR FRACTIONS.

RULE. If there be mixt numbers, reduce them firſt to fractions; then multiply the numerators together for a new numerator, and the denominators for a new denominator; which will be the product required.

EXAMPLES.

1. Multiply $\frac{3}{4}$ by $\frac{6}{7}$.
Facit $\frac{9}{14}$.

2. Multiply $3\frac{7}{9}$ by $\frac{2}{3}$ of $\frac{3}{4}$.
Facit $1\frac{8}{9}$.

3. Multiply $84\frac{1}{8}$ by 7.
Facit $588\frac{7}{8}$.

4. Multiply $\frac{6}{5}$ by $1\frac{1}{9}$.
Facit $1\frac{1}{3}$.

5 Multiply $\frac{7}{8}$ of $7\frac{1}{2}$, by $\frac{1}{3}$ of $3\frac{2}{5}$.
Facit $7\frac{7}{16}$.

6. Multiply $\frac{1}{3}$ of $\frac{3}{4}$ by $\frac{5}{6}$.
Facit $\frac{5}{24}$.

Of DIVISION *of* VULGAR FRACTIONS.

RULE. Prepare the fractions (if neceſſary) by the rules of Reduction; then invert your diviſor, and proceed as in multiplication:—the products will be the quotient required.

EXAMPLES.

1. Divide $\frac{9}{14}$ by $\frac{6}{7}$. - - *Facit* $\frac{3}{4}$.

By inverting your diviſor, the fractions will ſtand thus: $\frac{9}{14}\ \frac{7}{6}$. Then, $9\times7=63$
And, $14\times6=\overline{84}=\frac{3}{4}$ Anſwer.

2. Divide $1\frac{8}{9}$ by $\frac{2}{3}$ of $\frac{3}{4}$. *Facit* $3\frac{7}{9}$.

3. Divide $588\frac{7}{8}$ by $84\frac{1}{8}$. *Facit* 7.

4. Divide $1\frac{1}{3}$ by $\frac{6}{5}$. *Facit* $1\frac{1}{9}$

5. Divide $7\frac{7}{16}$ by $\frac{7}{8}$ of $7\frac{1}{2}$. *Facit* $1\frac{2}{15}$.

6. Divide $\frac{17}{60}$ by $\frac{1}{3}$ of $\frac{3}{4}$. *Facit* $1\frac{2}{15}$

7. Divide $\frac{8}{15}$ by $\frac{2}{5}$. *Facit* $1\frac{1}{3}$.

Of the RULE *of* THREE *in* VULGAR FRACTIONS.

RULE. Prepare the fractions, as before directed; then multiply the ſecond and third terms together, and divide the product by the firſt:—the quotient will be the anſwer in the ſame name as the middle term.

EXAMPLES.

1. If $\frac{5}{8}$ of a yard coſt $\frac{4}{5}$ of 1 l. what coſt $3\frac{2}{5}$ yards?
Anſwer, L. 4 : 7 : 0 $\frac{12}{25}$.

2. What is the purchaſe of 750 l. bank ſtock, at $107\frac{7}{8}$ l. *per cent.*?
Anſwer, L. 809 : 1 : 3.

3. If $\frac{1}{8}$ of a ſhip be worth 222 l. 17 s. 6 d. what are $\frac{7}{32}$ of her worth?
Anſwer, L. 390 : 0 : $7\frac{1}{2}$.

4. What will $19\frac{5}{8}$ oz. of ſilver coſt, at 6 s. 8 d. *per* oz.?
Anſwer, L. 6 : 10 : 10.

N. B. Queſtions in the double rule of three, or the rule of five in vulgar fractions, are wrought by the ſame rules as in common arithmetic: it is therefore needleſs to give any examples.

Of DECIMAL FRACTIONS.

DEcimal Fractions are thoſe whoſe denominators are 1, with one or more cyphers annexed; as 10, 100, 1000, *&c.* So $\frac{5}{10}$, $\frac{6}{100}$, $\frac{7}{1000}$, are decimal fractions, written thus without the denominator: ,5; ,06; ,007. From hence it appears, that the denominator

denominator of a decimal is a 1 with as many cyphers as there are figures in the decimal.

Note, 1. The 1ſt, 2d, and 3d, *&c.* places of decimals, counting from the left hand towards the right, are called Primes, Seconds, and Thirds, *&c.*
2. Cyphers on the right hand of decimals, do not affect their value.

Of ADDITION *and* SUBTRACTION *of* DECIMALS.

In Addition and Subtraction of decimals, the points being all placed under one another, add and ſubtract the figures, as in common arithmetic; and as many places of decimals as there are in the greateſt given numbers, ſo many figures of the ſum, or remainder, are to be noted for decimals.

EXAMPLES.

	,2768	3,1817	37,1861	,571
	,057	,34286	,585	,2785
	,81426	,005	,20065	,3
	7,21835	1,5	3,4186	,9
				2,0495
From	21,148	57,45	871,14936	,885
Take	9,05	26,7185	37,506	,0578
Remains				
Proof				

Of MULTIPLICATION *of* DECIMALS.

Multiplication of decimals is performed as in whole numbers; only obſerve to cut off juſt ſo many decimal parts from the product as there are decimals in both factors.

Note, If Decimals be wanted in the product, ſupply the deficiency with cyphers next to the decimal point.

EXAMPLES.

1. Multiply ,275 by 3,14.
2. Multiply ,1073 by ,0798.
3. Multiply 93,75 by 81,15.
4. Multiply 75 by ,075.
5. Multiply 32 by ,855.
6. Multiply 25,5 by ,0005.
7. Multiply 17,07 by 16,05
8. Multiply 319,125 by 107,2.
9. Multiply ,0025 by ,85.
10. Multiply ,517 by 1,76.

Of DIVISION *of* DECIMALS.

Proceed as in whole numbers, till the work be done; then cut off ſo many decimal places in the quotient as the dividend hath more than the diviſor: if there be not ſo many, the deficiency muſt be ſupplied with cyphers towards the left hand.

Note, In diviſion of decimals, there are Nine Caſes.

CASE I. A whole number divided by a whole number.

155)7876(759)136(

Note, 1. If any thing remain, add a cypher, and ſo on; then for every cypher added, there muſt be a decimal in the quotient.
2. If the dividend will not contain the diviſor, you muſt add cyphers thereto; which will be ſo many decimal places in the quotient.
3. If there be more decimals in the diviſor than in the dividend, you muſt add as many cyphers as will make them equal; after which, you may ſubjoin cyphers at pleaſure, for *Decimals*, to the laſt remainder.

CASE II. A whole number divided by a mixt number.

25,5)71865(317,25)87(

CASE III. A whole number divided by a decimal fraction.

,175)484(,3715)28(

CASE IV. A mixt number divided by a whole number.

45)718,175(218)35,7485(

CASE V. A mixt number divided by a mixt number.

37,005)2718,5685(88,55)7,9865(

CASE VI. A mixt number divided by a decimal fraction.

,275)37,745(,075)675,0085(

CASE VII. A decimal fraction divided by a whole number.

215),007586(17),400798(

CASE VIII. A decimal fraction divided by a mixt number.

35,5),087945(7,18),594868(

CASE IX. A decimal fraction divided by a decimal fraction.

,756),274869(,075),8174855(

Of

Of REDUCTION *of* DECIMALS.

CASE I. *To reduce a vulgar fraction to an equivalent decimal.*

RULE. Divide the numerator by the denominator, as in diviſion of Decimals; and the quotient will be the decimal required.

EXAMPLES.

1. Reduce $\frac{1}{4}$ to a decimal.

4)1,00

,25 Anſwer.

2. Reduce $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{5}$, $\frac{3}{5}$, $\frac{5}{6}$, and $\frac{7}{8}$ to decimals.

3. Reduce $\frac{14}{17}$, $\frac{18}{19}$, $\frac{7}{118}$, $\frac{8}{57}$, and $\frac{32}{164}$ to decimals.

4. Reduce $\frac{5}{9}$, $\frac{7}{11}$, $\frac{12}{23}$, $\frac{15}{17}$, and $\frac{1125}{10078}$ to decimals.

CASE II. *To find the decimal of money, weight, meaſure, &c.*—firſt reduce the given quantity, of which you are ſeeking the decimal, into the loweſt name mentioned; and divide by the integer, reduced into the ſame name:—the quotient ariſing from thence will be the decimal ſought.

EXAMPLES.

1. What is the decimal of 8 d. one pound the integer?

$\frac{8}{12}=\frac{2}{3}$ of $\frac{1}{20}$: reduced, $=\frac{2}{60}=\frac{1}{30}$.

Then,

30)1,0000

=,03333+ Decimal required.

l. d. OR,

1=240,)8,00000(,03333+

800

800

800

80

2. What

2. What is the decimal of 8 d. one ſhilling the integer?

12)8000

,666+ Anſwer

3. Reduce 3 s. 11¼ d. to the decimal of a pound.
Anſwer ,196+

4. Reduce 4 s. 9 d. to the decimal of a pound.
Anſwer ,2375

5. Reduce 3 fur. 170 yds, to the decimal of a mile.
Anſwer ,471+

6. Reduce 6 perches to the decimal of an acre.
Anſwer, ,0375

7. Reduce 7 lb. 14 oz. to the decimal of a ton.
Anſwer ,0035156+ of a ton.

8. Reduce 2 D. 8 H. 15 M. to the decimal of a month.
Anſwer ,0837+

CASE III. *To find the value of a decimal fraction in the known parts of money, weight, or meaſure,* &c.

RULE. Multiply the given decimal by ſuch a number as will reduce it to the next, and every inferiour denomination, and point off to the right hand of the product, as many places of decimals as are in the given number:—thoſe figures on the left hand of the points will be the value thereof.

EXAMPLES.

1. What is the value of ,275 L.?
Anſwer, 5 s. 6 d.

2. What is the value of ,8715 of a ton?

	Cwt.	*qr.*	*lb.*	*oz.*	*dr.*
Anſwer,	17	1	20	2	8+

3. What is the value of ,2155 ſhilling.?
Anſwer, 2½ d.+

4. What is the value of ,875 hhd. of wine?
Anſwer, 55 gal. 1 pt.

5. What is the value of ,925 ſhilling?
Anſwer, 11 d.+

6. What is the value of 2,7585 guinea?
Anſwer, L. 2 : 17 : 11+

7. What

7. What is the value of ,08715 lb. troy?

oz. dwts. gr.
Anſwer, 1 0 21+

8. What is the value of ,1855 mile?

Fur. Yds. ft. in.
Anſwer, 1 106 1 5+

Of the RULE *of* THREE *in* DECIMALS.

1. If 1,25 lb. of tea coſt ,4166 l. what coſt 35,125 lb.?
Anſwer, L. 11 : 14 : $1\frac{1}{2}$,20160.

2. If 6,25 hogſheads of wine coſt 189 l. what coſt 1,75 gallon?
Anſwer, L. 0 : 16 : $9\frac{1}{2}$,4.

3. If 3,1755 Cwt. of ſugar coſt 10,525 l. what coſt 1,8155 lb.?
Anſwer, L. 0 : 1 : $0\frac{3}{4}$,55+

Of TARE *and* TRET.

GROSS WEIGHT of any commodity, as, a cheſt of tea, is the weight of the tea and cheſt together.

Tare is the weight of the box, cheſt, bag, *&c.* wherein goods are packed: Or, *tare* is an allowance made in lieu thereof.

Tret is an allowance made for the waſte, or the dirt which may be mixed with any commodity, and is always four pounds in every one hundred and four pounds weight.

Cloff is an allowance to the buyer of 2 lb. for every 3 cwt. for the turn of the ſcale, in ſelling by retail.

Note, 1. What remains after the tare is taken from the groſs, is called *Tare-ſuttle*,

2. What remains after the tret is deducted, is called *Tret-ſuttle*; and when all deductions are made, the laſt remainder is called *Neat weight*.

EXAMPLES.

1. In 15 cwt. 1 qr. 14 lb. groſs, tare 16 lb. *per* cwt. tret 4 lb. *per* 104, cloff 2 to 100, how much neat?

lb.	cwt.	qr.	lb.	
16 = 1/7	15	1	14	Groſs.
	2	0	22	Tare.
2 1/28	13	0	20	Tare-ſuttle.
	0	2	0 3/4	Tret.
1/56	12	2	19 1/4	Tret-ſuttle.
	0	1	0 1/4	Cloff.
	12	1	19	Neat.

2. What is the neat weight of 15 bags of hops, containing 61 cwt. 3 qrs. 24 lb. groſs, tare 22 lb. *per* bag?

Anſwer, 59 cwt. 0 qr. 2 lb.

3. What is the neat weight of 5 barrels of indigo, each whereof weighs groſs 2 cwt. 3 qrs. 14 lb. tare 12 lb. *per* cwt.?

Anſwer, 12 cwt. 3 qrs. 9½ lb.

4. In 19 cwt. 1 qr. 18 lb. groſs, tare 13 lb. *per* cwt. how much neat?

Anſwer, 17 cwt. 0 qrs. 17½ lb. +

5. In 7 cheſts of tea, each weighing groſs 1 cwt. 3 qrs. 7 lb. tare 11½ lb. *per* cheſt, what is the neat weight?

Anſwer, 11 cwt. 3 qrs. 24½ lb.

6. What is the neat weight of 4 hhds. of ſugar, weighing as follow: The firſt, 4 cwt. 0 qr. 7 lb groſs, tare 69 lb. The ſecond, 3 cwt. 2 qrs. 27 lb. groſs, tare 58 lb. The third, 3 cwt. 1 qr. 22 lb. tare 57 lb. And the fourth, 3 cwt. 0 qr. 18 lb. groſs, tare 45 lb. allowing alſo 4 lb. *per* 104 lb. tret?

Anſwer, 11 cwt. 3 qrs. 15½ lb. +

7. In 9 cwt. 3 qrs. 14 lb. groſs weight, tare 17½ lb. *per* cwt. tret 4 lb. *per* 104 lb. cloff 2 lb. for every 3 cwt. that is, 1 lb. to 168 lb. how much neat, and what is the value, at 3 l. 5 s. 4 d. *per* cwt.?

	Cwt.	qrs.	lb.
Neat weight,	7	3	24 1/4 +
	l.	s.	d.
Value,	26	0	4

8. In 11 caſks of oil, weighing as follow: N° 1, 3 cwt. 0 qr. 19 lb.; N° 2, 3, and 4, 2 cwt. 1 qr. 27 lb. each; N° 5, 6, 7, and 8, 4 cwt. 3 qrs. 16 lb. each; N° 9, 10, and 11, 3 cwt. 2 qrs. 7 lb. each; how many gallons, allowing 17½ lb. *per* cwt. tare, and 7½ lb. neat to a gallon?

Anſwer, 515⅓ gallons.

Of

Of SIMPLE INTEREST.

INTEREST is the premium allowed for the loan of money. The ſum lent is called the *Principal.*

The Principal and Intereſt added together is called the *Amount.*

The rate of intereſt is a certain ſum of money agreed upon between the borrower and lender, to be paid for every 100 l. for one year.

Intereſt is of two ſorts, *Simple* and *Compound.*

Simple Intereſt is that which is allowed for the principal lent only.

Note, The rules for ſimple intereſt ſerve alſo to calculate commiſſion, brokage, inſurance, purchaſing of ſtocks, or any thing elſe rated at ſo much *per cent.*

CASE I.

To find the intereſt for a year,—multiply the principal by the rate, and divide the product by 100.

EXAMPLES.

1. What is the intereſt of 425 l. for a year, at $4\frac{3}{4}$ l. *per cent?*

	L.
	425
	$4\frac{3}{4}$
	1700
	212 : 10
	106 : 5
L.	20 | 18 : 15 : 0
	20
	375
	12
	900

Anſwer, L. 20 : 3 : 9

2. What is the intereſt of 1035 l. 10 s. at $4\frac{1}{2}$ l. *per cent. per annum?*

Anſwer, L. 46 : 11 : $11\frac{1}{4}$.+

3. What is the intereſt of 875 l. at $4\frac{1}{4}$ l. *per cent. per annum?*

Anſwer, L. 37 : 3 : 9.

4. What is the intereſt of 1285 l. 10 s. at 5 l. *per cent. per annum?*

Anſwer, L. 64 : 5 : 6.

CASE II.

To find the intereſt for ſeveral years,—multiply the intereſt of one year by the number of years.

Note, 1. If there be a $\frac{1}{4}$, $\frac{1}{2}$, or $\frac{3}{4}$ of a year, take the part or parts of a year, and add to the other.

EXAMPLES.

1. What is the intereſt of 550 l. for 4 years, at 4 l. *per cent. per annum?*

Anſwer, L. 88.

2. What is the intereſt of 275 l. for $3\frac{3}{4}$ years, at $4\frac{3}{4}$ l. *per cent. per annum?*

Anſwer, L. 48 : 19 : $8\frac{1}{4}$.

3. What is the intereſt of 755 l. 10 s. for $9\frac{1}{4}$ years, at 5 l. *per cent. per annum?*

Anſwer, L. 349 : 8 : $4\frac{1}{2}$.

4. What is the intereſt of 2005 l. 15 s. for $5\frac{1}{2}$ years, at $4\frac{1}{2}$ l. *per cent. per annum?*

Anſwer, L. 496 : 8 : 5.+

Note, 2. If there be any number of months under 12, divide them into aliquot parts, and proceed as before directed.

EXAMPLES.

1. What is the intereſt of 125 l. for 8 months, as 5 l. *per cent. per annum?*

Anſwer, L. 4 : 3 : 4.

2. What is the intereſt of 712 l. for 11 months, at $4\frac{3}{4}$ l. *per cent. per annum?*

Anſwer, L. 31 : 0 : $0\frac{1}{4}$+

3. What is the intereſt of 955 l. for 3 years and 7 months, at $4\frac{1}{4}$ l. *per cent. per annum?*

Anſwer, L. 145 : 8 : $9\frac{1}{4}$.

Note,

Note, 3. When the intereſt for *any number of weeks* is required, if they be no aliquot part or parts of 52, multiply the intereſt of a year by them, and divide by 52; *and for any number of days*, multiply the intereſt of a year by them, and divide by 365.

EXAMPLES.

1. What is the intereſt of 250l. for 19½ weeks, at 5 l. *per cent. per annum?*

Anſwer, L. 4 : 13 : 9.

L.	*Weeks.*		*L.*	*s.*	*d.*	
250	13	¼	12	10	0	Intereſt for 52 weeks.
5	6½	½				
			3	2	6	
L. 12 | 50			1	11	3	
| 20						
s. 10 | 00			4	13	9	Anſwer.

2. What is the intereſt of 175l. for 39 weeks, at 4½ l. *per cent. per annum?*

Anſwer, L. 5 : 18 : 1½.

3. What is the intereſt of 512l. 15 s. for 17 weeks, at 4¼ l. *per cent. per annum?*

Anſwer; L. 7 : 2 : 5¾+

4. What is the intereſt of 700l. for 27 weeks, at 4¾ l. *per cent. per annum?*

Anſwer, L. 17 : 5 : 3¼+

5. What is the intereſt of 345 l. for 37 days, at 4¼ l. *per cent. per annum.*

Anſwer, L. 1 : 9 : $8\frac{1}{2}\ \frac{322}{365}$.

6. What is the intereſt of 22 l. 10 s. for 185 days at 5 l. *per cent. per annum?*

Anſwer, L. 0 : 11 $4\frac{3}{4}\ \frac{145}{365}$.

7. What is the intereſt of 175 l. from 27th April 1774 to the 19th day of October following (both days included), at 4 l. *per cent. per annum?*

Anſwer, L. 3 : 7 : $6\frac{6}{73}$.

QUESTIONS *concerning* BROKAGE, FACTORAGE, INSURANCE, *and* STOCK.

1. What is the brokage of 159 l. at 4 s. or ⅕ l. *per cent.*

Anſwer, L. 0 : 6 : 4¼+

2. What is the brokage of 1075 l. 10 s. at 4 s. 6 d. *per cent.?*
Anſwer, L. 2 : 8 : $4\frac{3}{4}$+

3. What is the factorage of 707 l. 16 s. 8 d. at $2\frac{1}{2}$ l. *per cent.?*
Anſwer, L. 17 : 13 : 11.

4. What is the commiſſion of 700 l. 10 s. at $1\frac{1}{4}$ l. *per cent.?*
Anſwer, L. 8 : 15 : $1\frac{1}{2}$.

5. What is the inſurance of 915 l. 15 s. for 5 months, at $7\frac{3}{4}$ *per cent. per annum?*
Anſwer, L. 29 : 11 : 5+

6. What is the purchaſe of 1550 l. India ſtock, at $147\frac{3}{4}$ l. *per cent.?*
Anſwer, L. 2290 : 2 : 6.

7. What is the purchaſe of 1825 l. 6 s. 8 d. bank annuities, at $91\frac{7}{8}$ l. *per cent.?*
Anſwer, L. 1677 : 0 : 6.

8. What is the purchaſe of 978 l. South Sea ſtock, at $104\frac{3}{4}$ l. *per cent.?*
Anſwer, L. 1024 : 9 : 1.+

9. What is the brokage of 217 l. 12 s. 6d. at 3 l. *per cent.?*
Anſwer, L. 6 : 10 : $6\frac{3}{4}$.

10. What is the brokage of 191 l. at 5 s. 6 d. *per cent.?*
Anſwer, L. 0 : 10 : 6.+

Of COMPOUND INTEREST.

COMPOUND INTEREST is that which ariſes from the intereſt being added to the principal; and, continued in the hands of the borrower, becomes a part of the principal at the end of each ſtated time of payment.

RULE. Find the *amount* of the given principal for the time of the firſt payment, by Simple Intereſt; next find the intereſt of that ſum or principal, and add it as before; and thus proceed for any number of years, *&c.* The given principal being ſubtracted from the laſt amount, the remainder will be the compound intereſt. *Or*, find the amount of 1 pound for the time of the firſt payment, and multiply it by itſelf, as often as there are times of payment, leſs by one; that is, twice by itſelf if there be three payments, thrice if there be four, *&c.*—this laſt product and the principal multiplied together, the product will be the whole amount: *Or*,— Seek in the following Table for the amount of 1 pound at

the

the rate and time given, which being multiplied into the principal, the product will be the amount, that is, the compound intereſt and principal together.

N. B The times of payments, whether yearly, monthly, *&c.* muſt be equal.

The following TABLES *ſhew the amount of* one *pound, at the rates of* $3\frac{1}{2}$, 4, 5, *and* 6 *l.* per cent. per annum, *from* 1 *year to* 20.

1. *A* TABLE *of the amount of* 1 *l. at* $3\frac{1}{2}$ *l. and* 4 *l.* per cent.

	$3\frac{1}{2}$ RATES. 4.			$3\frac{1}{2}$ RATES. 4.	
Years.	*L. Dec. Parts.*	*L. Dec. Parts.*	*Years.*	*L. Dec. Parts.*	*L. Dec. Parts.*
1	1,035	1,04	11	1,45996	1,53945
2	1,07122	1,0816	12	1,51106	1,60103
3	1,10871	1,12486	13	1,56395	1,66507
4	1,14752	1,16986	14	1,61068	1,73167
5	1,18768	1,21665	15	1,67533	1,70094
6	1,22925	1,26531	16	1,73397	1,87298
7	1,27227	1,31593	17	1,79466	1,94790
8	1,31681	1,36856	18	1,85747	2,02581
9	1,36289	1,42331	19	1,92248	2,10684
10	1,41059	1,48024	20	1,98977	2,19112

2. *A* TABLE *of the amount of* 1 *l. at* 5 *l. and* 6 *l.* per cent.

	5. RATES. 6.			5. RATES. 6.	
Years.	*L. Dec. Parts.*	*L. Dec. Parts.*	*Years.*	*L. Dec. Parts.*	*L. Dec. parts.*
1	1,05	1,06	11	1,71033	1,89829
2	1,1025	1,1236	12	1,79585	2,01219
3	1,15762	1,19101	13	1,88564	2,13292
4	1,2155	1,26247	14	1,97993	2,2609
5	1,27628	1,33822	15	2,07892	2,39655
6	1,34009	1,41851	16	2,18287	2,54053
7	1,4071	1,50363	17	2,29201	2,69277
8	1,47745	1,59384	18	2,40661	2,85433
9	1,55132	1,68947	19	2,52695	3,02559
10	1,62889	1,79084	20	2,65329	3,20713

N. B. In finding the amount of 1 l. for 1 year, at the above rates *per cent.* the following proportions were uſed, *viz.*

L.	*L.*	*L.*	*L.*		*L.*	*L.*	*L.*	*L.*
As 100	: 103,5	: : 1	: 1,035		As 100	: 104	: : 1	: 1,04
As 100	: 105	: : 1	: 1,05		As 100	: 106	: : 1	: 1,06

Ex-

EXAMPLES.

1. What will the compound intereſt of 370 l. amount to in 6 years, at 4 l. *per cent. per annum?*

Anſwer, L. 98 : 3 : $4\frac{1}{4}$ d.

2. What will 50 l. amount to in 1 year, at 5 l. *per cent. per annum*, payable every 2 months?

Anſwer, L. 52 : 11 : $0\frac{1}{4}+$

3. What will 200 l. amount to in 5 years, at 4 l. *per cent. per annum*, compound intereſt?

Anſwer, L. 243 : 6 $7\frac{1}{4}+$

Of REBATE *or* DISCOMPT.

THE Rebate or Diſcompt of any ſum of money, is the difference between its preſent value, and *that* due at any time to come.

The preſent value of 50 l. due ſix months hence, calculated at 5 l. *per cent. per annum*, is only 48 l. 15 s. $7\frac{1}{4}$ d. becauſe if 48 l. 15 s. $7\frac{1}{4}$ d. were to be placed out at intereſt for 6 months, at 5 l. *per cent. per annum*, its amount would then be 50 l.

RULE. As the amount of 100 l. for the given rate and time, is to 100 l. or the intereſt of 100 l. for the given time; ſo is the given ſum or debt, to the preſent worth, or diſcompt of the given ſum.

EXAMPLES.

1. What is the preſent value of 40 l. due 2 months hence, diſcompt at 5 l. *per cent. per annum?*

Anſwer, L. 39 : 13 $4\frac{1}{2}$ $\frac{156}{241}$

M.		*l.*	*s.*	*d.*	
2	$\frac{1}{6}$	5	0	0	The intereſt of 100 l. for 1 year.
		0	16	8	Ditto of 100 l. for 2 months.
	Add	100	0	0	
The ſum is		100	16	8	The amount of 100 l. at the given rate and time.

The ſum is given is 40 l. Then, by the rule, the ſtating will be as follows:

l	*s*	*d.*		*l.*		*l.*
As 100	16	8	:	100	: :	40 : the preſent value.

Anſwer, L. 39 : 13 : $4\frac{1}{2}$ $\frac{156}{241}$

2. What

2. What is the preſent value of 271 l. 10 s. 6 d. for 7 months, at $4\frac{1}{2}$ l. *per cent. per annum?*

Anſwer, L. 264 : 11 : $7-\frac{363}{2463}$

3. What is the preſent value of 117 l. 15 s. due 18 days hence, at 5 l. *per cent. per annum?*

Anſwer, L. 117 : 9 : $2\frac{1}{4}\ \frac{84924}{87816}$

4. What is the preſent worth of 750 l. payable as follows, *viz.* 500 l. at 2 months, 150 l. at 3 months, and 100 l. at 4 months, at 4 l. *per cent. per annum?*

Anſwer, L. 743 : 17 : $9-\frac{84492}{289769}$

Note, 1. Bankers, in diſcounting bills, find the intereſt of the ſum drawn for, from the time the bill is diſcounted until it be due; which intereſt is more than the diſcount.

2. The queſtions in the 24th caſe of *Practice* are of a different nature from the above: the diſcount there is the intereſt at the rate *per cent.* without reſpect to time, and is calculated as in real buſineſs; for although diſcount was at firſt allowed for ready money only, yet, there is hardly a manufacturer that does not allow the merchant a diſcount from $2\frac{1}{2}$ l. to 30 l. or 40 l. *per cent.* and credit alſo. But if merchants pay, by choice, before the expiration of that fixed time of credit, they are allowed $2\frac{1}{2}$ *per cent.* extra diſcount from the amount of the invoice, calculated as intereſt.

Of EQUATION *of* PAYMENTS.

EQUATION of PAYMENTS is when ſeveral ſums of money, due at different times, are reduced to one proportional payment, ſo that no loſs may be ſuſtained by either party.

RULE. Multiply each payment by the time it is due at, and divide the ſum of the products by the ſum of the payments; the quotient will be the equated time.

1. There is a debt of 70 l. to be paid, one half at two months, the other half at 6 months; I demand an equated time for the payment of the whole?

Anſwer, 4 months.

2. A debt of 240 l. due as follows, *viz.* 80 l. in 1 month, 100 l. in 3 months, and the remainder in 4 months; when muſt the whole be paid together?

Anſwer, 2 months, $16\frac{1}{3}$ days.

3. A debt is to be discharged, by paying $\frac{1}{2}$ at 2 months, $\frac{1}{3}$ at 4 months, and the rest at 8 months:—what is the equated time for the whole?

Answer, 3 months $18\frac{2}{3}$ days.

4. A debt of 750 l. is payable as follows, *viz.* 500 l. at 2 months, 150 l. at 3 months, and 100 l. at $4\frac{1}{4}$ months:—when must the whole be paid together?

Answer, $2\frac{1}{2}$ months.

Of SINGLE FELLOWSHIP.

SINGLE FELLOWSHIP teaches to divide any number into any assigned number of parts, in the same proportion as these parts are to each other.

The gain or loss, *&c.* of merchants in company, are adjusted by this

RULE. As the sum of the numbers to which the required parts must be proportional, is to the number to be divided; so are each of the given numbers to which those required must be proportional, to their respective parts required.

EXAMPLES.

1. Divide the number 182 into four such parts as shall be to each other as 2, 3, 4, 5.

Answer, 26, 39, 52, 65.

2. Two men, *A* and *B*, are partners in trade: *A* put in 250 l. and *B* 750 l. By trade they gain 155 l. 12 s. 6 d. what is each man's share of the gain?

Answer, *A*'s L. 38 : 18 : $1\frac{1}{2}$. *B*'s L. 116 : 14 : $4\frac{1}{2}$.

3. Four men, *A*, *B*, *C* and *D*, are partners, and trade with a stock of 12750 l. whereof *A* advanced 1718 l. *B* 2000 l. *C* 5178 l. and *D* the rest:—In 1 year's time they gain 2000 l.—I demand each man's share of the gain?

Answer, *A*'s L. 269 : 9 : $9\frac{1}{2}\ \frac{750}{12750}$ *B*'s L. 313 : 14 : $6-\frac{150}{12750}$
C's L. 812 : 4 : $8\frac{1}{4}\ \frac{1125}{12750}$ *D*'s L. 604 : 10 : $11\frac{3}{4}\ \frac{75}{12750}$

4. Three men, *A*, *B* and *C*, in trade lost 150 l. their joint stock was 2005 l. whereof *A* put in 1700 l. and *B* and *C* an equal share of the rest:—what is each man's share of the loss?

Answer, *A*'s L. 127 : 3 : $7\frac{1}{2}\ \frac{1530}{2005}$ *B*'s and *C*'s *each* L. 11 : 8 : $2-\frac{1240}{2005}$.

Of

Of DOUBLE FELLOWSHIP.

DOUBLE FELLOWSHIP, or Fellowſhip with Time, is occaſioned by the ſhares of partners being continued unequal times.

RULE. Multiply each man's ſhare by the time it was continued in trade, and divide the gain or loſs in proportion to the products, as in Single Fellowſhip; by ſaying, As the ſum of the products is to the whole gain or loſs; ſo is each product to each part thereof.

EXAMPLES.

1. *A* and *B* are partners: *A* put in 60 l. for 3 months, and *B* 50 l. for 4 months; at the end of which they find a gain of 30 l. —how muſt it be divided between them?

		L.	s.	d.
Anſwer,	*A* muſt have	14	4	$2\frac{1}{2}\ \frac{40}{380}$
	B –	15	15	$9\frac{1}{4}\ \frac{340}{380}$

2. *A*, *B* and *C* have a paſture in common, at 140 l. *per annum*; into which *A* put in 12 oxen for 3 months, *B* 22 oxen for 4 months, and *C* 18 oxen for $2\frac{1}{2}$ months:—what muſt each pay of the rent?

		L.	s.	d.
Anſwer,	*A*	29	16	$5\frac{1}{4}\ \frac{99}{169}$
	B	72	17	$11\frac{3}{4}\ \frac{75}{169}$
	C	37	5	$6\frac{1}{2}\ \frac{166}{169}$

Of BARTER.

BARTERING is the exchanging of one commodity for another, and teaches merchants to proportion their quantities without loſs.

CASE I. *When the quantity of one commodity is given, with its value, or that of its integer, that is of* 1 *lb.* &c. *as alſo the value of the integer of ſome other commodity to be given for it, to find the quantity of this; or having the Quantity hereof given, to find the rate of ſelling it*:—Calculate the amount of the given quantity in the conciſeſt method, then find how much of the other quantity this amount will purchaſe at the propoſed rate: *Or*, if the quantity be given, find from thence the rate of ſelling it.

CASE II. *If the quantities of two commodities be given, and the rate of ſelling them, to find, in caſe of inequality in the amount, how much of ſome other commodity muſt be given* :—find the ſeparate values of the two given commodities; ſubtract the leſs from the greater, and the difference is the amount of the third commodity, whoſe quantity and rate may be eaſily found.

CASE III. *Sometimes, in bartering, one commodity is rated above the ready-money price; then to find the bartering price of the other, ſay*, As the ready-money price of the one is to its bartering price; ſo is that of the other to *its* bartering price: Next find the quantity required, according to either the bartering or ready-money price.

EXAMPLES.

1. How much tea, at 7 s. 6 d. *per* lb. muſt be given in barter for 124 gallons of rum at 8 s. 5d$\frac{1}{2}$ *per* gallon?

Anſwer, 139$\frac{38}{45}$ lb.

2. How much cloth, at 12 s. 8 d. *per* yard, muſt be given for 4 cwt. 1 qr. 17 lb. of hops, at 6 guineas *per* cwt.?

Anſwer, 43 yds, 3 qrs. 0$\frac{44}{80}$ na.

3. *B* delivered 15 cwt. 3 qrs. of ſugar, at 7 d. *per* lb. to *C*, for 343 yards of cloth:—what did the cloth coſt *per* yard?

Anſwer, L: 0 : 3 : 0

4. *A* has clover ſeed worth 1 s *per* lb. ready money, but in barter he will have 13$\frac{1}{2}$ d. *B* has broad cloth worth 16 s. 3 d. *per* yard ready money:—at what rate muſt *B* value his cloth *per* yard, to be equivalent to *A*'s bartering price, and how much clover ſeed, at 7$\frac{1}{2}$ d. *per* lb. muſt then be given by *A* for 244 yards of *B*'s broad cloth?

Anſwer, *B*'s broad cloth, at L. 0 : 18 : 3$\frac{1}{4}$ $\frac{1}{2}$ *per* yd.
7020 lb. of clover ſeed.

5. *A* and *B* would barter. *A* has 87 boles of wheat, at 32 s. 9 d. *per* bole: *B* gives *A* 50 boles of peaſe, worth 20 s. 6 d. *per* bole, and the balance in hops at 15 d. *per* lb.—what quantity of hops muſt *A* receive from *B*?

Anſwer. 13 cwt. 0 qr. 3$\frac{6}{15}$ lb.

6. *F* and *G* barter. *F* has Iriſh linen worth 1 s 9$\frac{1}{2}$ d. *per* yard, but in barter he will have 1 s. 11 d. *G* delivers him broad cloth at 18 s. 3 d. *per* yard, worth only 16 s. 6 d. *per* yard:—Pray which has the advantage in barter, and how much linen does *F* give *G* for 74 yards of broad cloth?

Anſwer, 704$\frac{14}{23}$ yards:—and *G* has the advantage, whoſe proportional price is only L. 0 : 17 : 7$\frac{3}{4}$ $\frac{22}{80}$ *per* yard.

LOSS

LOSS *and* GAIN.

LOss and GAIN is an excellent rule, by which merchants diſcover their profit or loſs *per cent.* or by the groſs: of which queſtions there is a great variety.

N. B. There is hardly an Arithmetic extant that hath not ſome queſtions falſely wrought in this rule, the authors not having properly underſtood the method of ſtating them: for which reaſon, I ſhall explain ſeveral of the following, to remove the ſeeming difficulty.

EXAMPLES.

1. Bought $1\frac{3}{4}$ cwt of cheeſe for 3 l. 13 s. 6 d. and ſold it again for $5\frac{1}{4}$ d. *per* lb.—what did I gain or loſe by the ſale of it?

Anſwer, I gain'd L. 0 : 12 : 3.

Note, Find the value of the cheeſe at the prime coſt, and next at the price ſold for, and ſubtract the one from the other:—the remainder will be the gain or loſs.

2. At what price muſt I ſell my cloth *per* yard, which coſt me 3 s. 8 d, to gain $12\frac{1}{2}$ l. *per cent.*?

Anſwer, L. 0 : 4 : $1\frac{1}{2}$.

Note, As it is propoſed to gain 12 l. 10 s. *per cent.* ſo 12 l. 10 s. muſt be added to 100 l. for the middle term; and then the proportion will be as follows:

Prime coſt.	*Gaining price.*	*Prime coſt.*		
L.	*L. s.*	*s. d.*		*s. d.*
As 100	: 112 10	: : 3 8	to the anſwer above *viz.*	4 $1\frac{1}{2}$

3. At what price muſt I ſell my cloth *per* yard, which coſt me 3 s. 8 d. to loſe $12\frac{1}{2}$ l. *per cent.*?

Anſwer, L. 0 : 3 : $2\frac{1}{2}$.

Note, This queſtion is the very reverſe of the laſt; and therefore 12 l. 10 s. muſt be ſubtracted from 100 l. and the remainder placed as the middle term, as follows:

Prime coſt.	*Loſing price.*	*Prime coſt.*	
L.	*L. s.*	*s. d.*	
As 100	: 87 10	: : 3 8	: the anſwer above.

4. If by ſelling cloth at 4 s. $1\frac{1}{2}$ d. *per* yard, I gain $12\frac{1}{2}$ l. *per cent.* what did it ſtand me in *per* yard?

Anſwer, L. 0 : 3 : 8.

Note, As, by the queſtion, 12 l. 10 s. *per cent.* is gained by the cloth at the ſelling price, that is, 112 l. 10 s. worth of this cloth, being ſold, coſt no more than 100 l. conſequently, to find the prime coſt, it will be,

Prime coſt and gain.		*Prime coſt.*		*Pr. coſt and gain.*		
L.	*s.*	*L.*		*s.* *d.*	*s.* *d.*	
As 112	10	: 100	:	4 $1\frac{1}{2}$	: 3 8	the prime coſt.

5. If by ſelling cloth at 3 s. $2\frac{1}{2}$ d. *per* yard I loſe $12\frac{1}{2}$ l. *per cent.* what is the prime coſt thereof?

Anſwer, L. 0 : 3 : 8.

Note, The cloth here being ſold at 12 l. 10 s. *per cent.* loſs, you muſt firſt ſubtract 12 l. 10 s. from 100 l. which leaves 87 l. 10 s.: Now, by the queſtion, it is evident that you only get 87 l. 10 s. for what coſt 100 l. therefore, to find the prime coſt, it will be,

Loſing price.		*Prime coſt.*		*Loſing price.*		
l.	*s.*	*L.*		*s.* *d.*	*s.* *d.*	
As 87	10	: 100	: :	3 $2\frac{1}{2}$	: 3 8	the prime coſt.

6 If by ſelling cloth at 5 s. 9 d. *per* yard I gain 15 l. *per cent.* what do I gain by ſelling it at 6 s. *per* yard?

Anſwer, L. 20 *per cent.*

Note, 1. The prime coſt may be firſt found, as at queſtion 4th.

2. Then ſay, As the difference betwixt the prime coſt and the ſelling price, *viz.* 9 d. is to 15 l. *per cent.* ſo is the difference betwixt the prime coſt and the latter ſelling price to the gain *per cent.* *viz.* 20 l. that is,

d.		*L.*		*d.*	
As 9	:	15	: :	12	: the anſwer above.

Or by one ſtating thus,

s. *d.*		*L.*		*s.*	
As 5 9	:	115	: :	6	: *to the prime coſt and gain* per cent.

7. At $1\frac{3}{4}$ d. *per* ſhilling profit, how much *per cent.*?

Anſwer, L. 14 : 11 : 8.

s.		*d.*		*L.*	
As 1	:	$1\frac{3}{4}$	: :	100	: the anſwer.

8. At 2 s. 6 d. *per* pound profit, how much *per cent.*?

Anſwer, L. 12 : 10 : 0.

9. If 4 cwt. 3 qrs. 14 lb. be bought for 15 l. 18 s. 6 d. and ſold for 18 l. 15 s. $4\frac{1}{2}$ d. what is the rate of gain *per* cwt.?

Anſwer, L. 0: 11 : 8.

10. If 4 cwt. 3 qrs. 14 lb. coſt 18 l. 15 s. $4\frac{1}{2}$ d. at what rate *per* lb. muſt it be ſold to loſe upon the whole 2 guineas?

Anſwer, $7\frac{1}{4}$ d. $\frac{4}{13}$ *per* lb.

11. Sold

11. Sold a repeating watch for 45 guineas and a crown, by which I loſt 5 l. *per cent.* whereas in dealing I ought to have gained $12\frac{1}{2}$ l. *per cent.*—how much then was it ſold for leſs than the value?

Anſwer, L. 8 : 15 : 0.

12. A ſtationer ſold quills at 8 s. 9 d. *per* thouſand, by which he gained $\frac{1}{8}$ of the money; afterwards becoming ſcarce, he raiſed them to 9 s. 6 d. *per* thouſand:—What was his gain *per cent.* by the latter price?

Anſwer, L. 26 : 13 : 4.

13. If by remitting to Ireland at $109\frac{7}{8}$ I gain $\frac{11}{20}$ l. *per cent.* at what rate is the exchange, when by remittance I gain $3\frac{1}{2}$ l. *per cent.*?

Anſwer, L. $111\frac{2}{39}$.

14. I bought ſtockings in London at 3 s. 10 d. *per* pair, and ſold them afterwards in Dublin for 5 s. 6 d. In remitting my money home I loſt $8\frac{1}{3}$ l. *per cent.* and the charges attending the freight, *&c.* of the ſtockings, at an average, was $1\frac{1}{2}$d *per* pair:—Pray what did I gain or loſe *per cent* by them?

Anſwer, I gained L. 27 : 7 : $4\frac{1}{4}$ $\frac{13}{19}$ *per cent.*

Of EXCHANGE.

EXCHANGE is the trade of money carried on between one place and another by means of bills of exchange.

Courſe of exchange is the value of money agreed on among merchants, which varies almoſt every day, according as money is plenty or ſcarce, or according to the time allowed for payment of the money in exchange; and is ſometimes above, and ſometimes below *par*.

By the PAR of exchange is meant, an equality of the money to be exchanged; that is to ſay, the quantity and quality of one nation's money is ſuppoſed to be equal to that of the other, even if they were both to be converted into ſeparate pieces of bullion. Exchanges are moſtly rated upon ſilver coin, and the prices of exchange are the proportional rates of negotiation, be they ever ſo large.

Agio, is a term uſed chiefly in Holland, and at Venice, to ſignify the difference between the value of bank ſtock and the current coin.

The *agio* in Holland, is generally 3 or 4 *per cent.* and at Rome it is from 15 to 25 *per cent.* but at Venice the agio is fixed at 20 *per cent.*

Ex-

EXTRACT *of the* COURSE *of* EXCHANGE *at* LONDON.

Amſterdam, 34s. 6d. at 2 uſance. Rotterdam, 34s. 7d. at $\frac{1}{2}$ uſance. —The par is 36s. 7 d.	That is, 34 s. 6 d. Dutch money, is given or allowed for 1 l. Sterling.—Uſance is at a month's date, *&c.*
Hamburgh, 32 s. at $2\frac{1}{2}$ uſance. Antwerp, 33 s. at $\frac{1}{2}$ uſance. —The par is 35 s. $6\frac{2}{3}$ d.	To this place the exchange is negotiated as to Holland; but the ſchilling there is rather of more value, which makes the par lower.
Paris, 30s. at 1 uſance. Bourdeaux, $30\frac{3}{8}$ d. at 2 uſance. —The par is $31\frac{1}{4}$ d.	That is, 30 d. Engliſh are given or allowed for one French crown, of 3 livres, or 60 ſols.—To Bourdeaux $30\frac{3}{8}$ d. Sterling *per* crown.
Madrid, $39\frac{7}{8}$ d. at 2 uſance. Cadiz, $39\frac{3}{4}$ d. at $\frac{1}{2}$ uſance. —The par is 43 d.	England allows to theſe places $39\frac{7}{8}$ d. and $39\frac{3}{4}$ d. reſpectively, for one paiſter of Spaniſh money of 8 rials.
Leghorn, $49\frac{7}{8}$ d. Genoa, 49 d. —The par is 54 d.	To theſe places England gives $49\frac{7}{8}$ d. and 49 d. Sterling reſpectively, for 1 paiſter of 120 ſoldi to the former, and for 1 pezzo of 115 ſoldi to the latter.
Venice, $51\frac{3}{4}$ d. —The par is $50\frac{1}{4}$ d.	To this place England gives $51\frac{3}{4}$ d. for 1 ducat banco of Venice of $6\frac{1}{5}$ livres, or 124 ſoldi; by which it appears that the exchange to Venice is under par, or againſt London.
Liſbon, 6 s. $0\frac{1}{4}$ d. Oporto, 5 s. $5\frac{3}{4}$ d. —The par is 5 s. $7\frac{1}{2}$ d.	London gives to this kingdom pence and parts, for a millree of 1000 rees.—This exchange is moſtly in favour of England.
Dublin, or Ireland, $9\frac{3}{4}$ l. —The par is $108\frac{1}{3}$ l.	To this place London gives 100l. Sterling for 109l. $\frac{3}{4}$ Iriſh money:—So that the exchange is above par in favour of London at preſent, $1\frac{1}{2}$ L. *per cent* nearly.

I. *With*

I. *With* HOLLAND, FLANDERS *and* GERMANY.

In theſe places, accompts are kept ſometimes in pounds, ſhillings and pence, as in England, and ſometimes in guilders, ſtivers, and pennings. *Holland* and *Flanders'* money is diſtinguiſhed by the name *Flemiſh*, and exchange by the pound Sterling.

Note,

16 pennings make 1 ſtiver.
20 ſtivers, 1 guilder, or florin.

And in Germany.
12 phennings, 1 ſchilling lubs.
16 lubiſh ſchillings, 1 mark.

8 pennings, 1 grote, or penny.
12 grotes, or pence, 1 ſchilling.
20 ſchillings, 1 pound.

6 phennings, 1 grote Flemiſh.
6 lubiſh ſchill. 1 ſchilling Flem.
$7\frac{1}{2}$ marks lubs, 1 pound Flem.

EXAMPLES.

1. To how much Flemiſh will 1050 l. Sterling amount, exchange at 34 s. Flemiſh *per* pound Sterling?

Anſwer, L. 1785.

2. To how much Sterling will 1785 l. Flemiſh amount, exchange at 34 s. *per* pound Sterling?

Anſwer, L. 1050.

3. How much Flemiſh muſt be given for 5161. 10 s. Sterling, exchange at 33 s. 9 d. Flemiſh *per* pound Sterling?

L. s. pe. pen.
Anſwer, 871 11 10 4 Flem.

4. How much Sterling muſt be given for 871 l. 11 s. 10 pe. 4 pen. Flemiſh, exchange at 33 s. 9 d. *per* pound Sterling?

Anſwer, L. 516 : 10 0.

5. How many guilders may I have for 1181. 15 s. 6 d. Sterling, exchange at 35 s. 4 d Flem. *per* pound Sterling?

Guil. ſtiv. pen.
Anſwer, 1259 0 $4\frac{4}{5}$

6. How much Sterling may I have for 3876 guil. 14 ſtiv. 8 pen. exchange at 35 s. 6 d. Flem. *per* pound Sterling?

Anſwer, L. 364 : 0 : $2\frac{3}{4}\frac{19}{71}$

II. *To reduce the current Money of* Holland *into Bank Money, and the contrary.*

Ex-

EXAMPLES.

1 How much bank money can I have for 1865 guilders current money, the agio being at 4 guilders *per cent?*

guil. b. ſtiv. pen.
Anſwer, 1793 5 $6\frac{2}{13}$

gu.cur. gu. b. gu.cur.
As 104 100 1865 : the anſwer

2 How much bank money, the agio being at $3\frac{1}{2}$ guilders, *per cent.* can I have for 4186 guil 5 ſtiv?

guil.b. ſtiv. pen.
Anſwer, 4044 13 $11\frac{107}{207}$

3. Amſterdam remits to London 1756 guil. 18 ſtiv. at 33 s. 8d. Banco *per* pound Sterling :—what will this remittance amount to in London in Sterling money?

Anſwer, L. 173 : 19 : $0\frac{24}{404}$

4. What quantity of Flemiſh currency muſt I have for 285 l. 11 s. 6 d. Sterling, exchange at 33 s. 10 d. Flemiſh *per* pound Sterling, and agio at $4\frac{1}{2}$ *per cent.?*

Anſwer, L. 504 : 16 : $8\frac{1}{2}$ +

5. How much Sterling muſt I receive for 472 l. 12 s. Flemiſh currency, the agio being 4 *per cent.* and exchange 34 s. 6 d. Flemiſh *per* pound Sterling?

Anſwer, L. 263 : 8 : 8

6. To how much Sterling will 7815 marks 8 ſhil. 6 phen. amount, exchange at 36 s. 4 d. Flemiſh *per* pound Sterling?

Anſwer, L. 573 : 12 : $0\frac{48}{109}$

7. How many marks muſt be received for 1608 l. Sterling, exchange at 36 s. 4 d. *per* pound Sterling?

Anſwer, L. 21909 marks.

III. *With* FRANCE.

In France they keep their accompts in livres, ſols and deniers.

Note, 12 deniers *make* 1 ſol *or* ſou.
20 ſols - - 1 livre.
3 livres - - 1 crown *or* ecu.

EXAMPLES.

1. At $31\frac{1}{2}$ d. *per* crown, how many muſt be paid for 2867 l. 16s. 3 d. Sterling?

Anſwer, 21850 crowns.

2. A bill drawn for 37677 livres 6 ſols 9 deniers, is remitted to London;—what does it amount to, at $31\frac{1}{2}$ d. *per* crown?

Anſwer, L. 1648 : 7 : $8\frac{7}{40}$

3. How many French crowns may I have for 157 guineas, exchange at $56\frac{1}{2}$ d. *per* crown?

Anſwer, $700\frac{28}{113}$ crowns.

IV. *With* SPAIN.

In Spain they keep their accompts in paiſtres, rials and mervadies.

Note, 372 mervadies make 1 rial.
8 rials - - 1 piaſtre.

EXAMPLES.

1. Spain draws upon London for 4284 piaſtres, exchange at 50 d. *per* piaſtre;—how much Sterling will pay the bill?

Anſwer, L. 892 : 18 : 0.

2. London draws upon Spain for 125 l. 10 s. how many piaſters will pay the draught, exchange at 51 d. *per* piaſtre?

pias. ria. mer.
Anſwer, 590 4 $262\frac{10}{17}$

V. *With* ITALY.

In Italy they keep their accompts in *livres*, *ſols*, and *deniers*; except ſome few cities.

Note, 1. 12 deniers make 1 ſol.
20 ſols - 1 livre.
5 livres - 1 piece of eight at Genoa.
6 livres - 1 piece of eight at Leghorn.

EXAMPLES.

1. What is the amount of 94 l. 10 s. in pieces of eight or piaſtres, at 56 d. *per* piece?

Anſwer, 405 pieces.

2. Genoa draws upon London for 4500 livres: how much Sterling will pay the draught, exchange at $51\frac{1}{2}$ d. *per* piaſtre?

Anſwer, L. 193 : 2 : 6.

3. London draws upon Leghorn for 275 l.—how many livres muſt be paid for the draught, exchange at $50\frac{1}{2}$ d. *per* piece of eight?

liv. ſols. den.
Anſwer, 7841 11 $8\frac{20}{101}$

Note, 2. At Venice accompts are by ſome kept as at Genoa and Leghorn, and by others in ducats and groſſes.

Note, 3. 6 ſolidi make 1 groſſe.
24 groſſes - 1 ducat.

There are two ſorts of ducats, *viz. bank* ducats and ducats *picoli*, or current ducats, which are 20 l. *per cent.* worſe than the former.

*** The par of the ducat *banco* is 52 d. Sterling; and that of the ducat *picoli* 40 d. Sterling.

EXAMPLES.

1. If 2025 ducats, at 4 s. 4 d. each, were to be remitted to London to be paid in pounds Sterling, how much would they amount to?

Anſwer, L. 438 : 15 : 0.

2. I would exchange 105 l. 12 s. 6 d. Sterling for Venice ducats :—Pray how many ſhould I have, exchange at 39 d. *per* ducat?

	Duc.	*gr.*	*ſol.*
Anſwer,	517	8	$0\frac{47}{49}$

VI. *With* PORTUGAL.

In Portugal they keep their accompts in reas.

Note, 1000 reas make 1 mill-rea.

EXAMPLES.

1. Liſbon draws on London for 1666 mill-reas, exchange at 6 s. 8 d. *per* mill-rea :—how much Sterling will pay the bill?

Anſwer, L. 555 : 6 : 8.

2. London draws on Liſbon for 1275 l. 13 s. 4 d. exchange at 6 s. 8 d. *per* mill rea :—how many will pay the bill?

Anſwer, 3827 mill-reas.

VII. *With* IRELAND, AMERICA, *and the* WEST INDIES.

Accompts are kept in theſe places as in *London*, that is, in pounds, ſhillings, and pence.

Note, 1. In London, their money is called *Sterling*; but in the weſtern dominions, *currency*.

2. The diſcount of the *currency* in the Engliſh iſlands in the Weſt Indies, runs from 25 l. to 50 l. *per cent.* that is, 125 l. or 150 l. currency for 100 l. Sterling.

3. The weights and meaſures *there* are the ſame as in *London*, except their hundred weight; *this* being only 100 lb. avoirdupois, in lieu of 112 lb.

The

The following FOREIGN COINS *are current in the* Britiſh *Colonies and Plantations, whoſe Values are as follow:*

	Weight.		*True Value.*		*Current Value.*		
	dwt.	*gr.*	*s.*	*d.*	*s.*	*d.*	*qr.*
Pieces of eight (old plate of Seville)	17	12	4	6	6	0	
Ditto new – – – –	14	0	3	$7\frac{1}{4}$	4	$9\frac{1}{2}$	$\frac{2}{3}$
Mexico ditto – – – –	17	12	4	6	6	0	
Piller ditto – – – –	17	12	4	$6\frac{3}{4}$	6	0	
Peru ditto (old plate) – –	17	12	4	5	5	$10\frac{1}{2}$	$\frac{2}{3}$
Croſs dollars – – – –	18	0	4	$4\frac{3}{4}$	5	$10\frac{1}{4}$	$\frac{1}{3}$
Ducatoons of *Flanders* – –	20	21	5	6	7	4	
Cruſadoes of *Portugal* – – –	11	4	2	$10\frac{1}{4}$	3	$9\frac{1}{2}$	$\frac{2}{3}$
French crowns, or ecus – –	17	12	4	6	6	0	
Three guilder pieces of *Holland* –	20	7	5	$2\frac{1}{4}$	6	$10\frac{3}{4}$	$\frac{2}{3}$
Old rix dollars of the empire –	18	10	4	6	6	0	

Note, Pieces of the ſame *weight*, but of different *value*, are occaſioned by their being of a different quality.

EXAMPLES.

1. London remits to Dublin 277 l. 10 s.—What muſt be received there, exchange at $109\frac{3}{8}$ l. *per cent.*?

Anſwer, L. 303 : 10 : $3\frac{3}{4}$

2. Dublin remits to London 1000 l.—What muſt be received here exchange at $108\frac{1}{8}$ l. *per cent.*?

Anſwer, L. 922 : 14 : $5\frac{1}{4}\ \frac{43}{289}$.

3. London remits to Jamaica 515 l. 10 s.—what muſt be received there for it, exchange at 125 l. *per cent.*?

Anſwer, L. 644 : 17 : 6.

4. A merchant in Jamaica remits 417 l. 10 s. 6 d. currency, how much Sterling muſt be received for it, exchange at 145 l. *per cent.*?

Anſwer L. 287 : 18 : $11\frac{1}{2}\ \frac{10}{29}$.

Of BILLS *of* EXCHANGE.

LAWS *and* MAXIMS *relating to* BILLS *of* EXCHANGE.

A Bill of Exchange is an order for money to be received in *one* place or country for the value paid in *another*; to which merchants and tradeſmen pay the ſtricteſt honour and regard.

Bills are either *foreign* or *domeſtic*.

In bills of exchange, there are commonly four perſons principally concerned, *viz.* the *drawer*, the *remitter*, or the perſon to whom it is payable, the *poſſeſſor* or *preſenter*, and the *acceptant*: ſometimes there are but *three* perſons concerned, and very rarely *two only*.

Foreign bills are uſually payable in London at ſingle, double, or treble uſance, that is, one, two, or three months after date.

Domeſtic bills are uſually payable at ſight, ſome number of days after ſight, or at ſome days or months after date.

Foreign cities, drawing bills of exchange on London, always mention the rate of exchange, becauſe they draw in their own money; but when bills are drawn by London on foreign cities in *their* money, the rate of exchange is not mentioned, that being a particular agreement between the *remitter* and the *drawer*, which concerns not the *acceptant*, nor the *receiver*; ſo that they run abſolutely for ſo many pieces, or ſo much current money; except in Holland; in which caſe the ſum is preſcribed in Sterling, and then at what rate of exchange.

To prevent interruption of buſineſs by miſcarriage of letters, or other accidents, merchants always draw *two*, and often *three* outland bills, all of the ſame tenor and date, excepting the *ſecond* againſt the *firſt*, and, if there be *three* drawn, againſt the *third* alſo, and in the *third* againſt the *firſt* and *ſecond*, to prevent the *accepter* from paying more than *one* of them by miſtake; which bills the *remitter* takes care to ſend his correſpondent, to whom they are made payable by different poſts, one of which being anſwered, the reſt are of no force.

If you diſcount or pay a debt with an outland or foreign bill, payable to yourſelf, or order, it is uſual to write your *name* on the back ſide of the bill, and deliver it into the poſſeſſion of the *perſon* you intend to make it over to, which is called *indorſing*; whereby you aſſign all your property to *him*: But, beſides the indorſer's name, it is uſual to fill up the indorſement, by appointing payment to his *order*, naming the *perſon* he aſſigns it over to, and the conditions

ditions and reaſons which induced him to make ſuch indorſement; as, *Pay Mr.* A B—, *or order, value in accompt,* C D—. And if Mr. *C D*— ſhould aſſign it to another; *Pay Mr.* E F—, *or order, value of himſelf,* G H—; remembering always, that unleſs the word *order* be inſerted, no *bill of exchange,* or *promiſſory note* is indorſible to another.

The *uſance* or *uſage of merchants,* with reſpect to *foreign* bills of exchange, to and from London to Rotterdam, Antwerp, or any part of the Low Countries, is one kalender month after the date of the bill; double uſance two months, *&c.* Uſance from Hamburgh, Copenhagen, Stockholm, Lubeck, Straſburgh to London, and *contra,* is alſo one month; though bills from thoſe and other diſtant places, are commonly drawn payable *after ſight,* becauſe of the uncertainty of their arrival.

Uſance from *London* to *Liſbon,* or *Madrid,* is *two* months; to *Leghorn, Venice,* or any part of the *Levant, three* months, and *contra.*

All bills of exchange, upon their coming to the *preſenter*'s hands from the *remitter,* are immediately to be tendered to the *perſon* on whom they are drawn for *acceptance*; which, by legal appointment, ought to be made in *writing* under the bill.

If a bill be payable at uſance, or after date, the acceptant's ſubſcribing his name, or making any other mark on the ſame, is a ſufficient and valid acceptance; but if it be payable after ſight, the day on which it is tendered for acceptance muſt be alſo mentioned upon it; becauſe upon that depends the time of payment; and by which acceptance, he becomes irrevocably debtor to the preſenter for the contents; or the courſe of exchange would, otherwiſe, be ſubject to great hazards and uncertainties.

But if the party to whom a bill be directed, *refuſe* to accept it, after twenty-four hours deliberation, if it be a *foreign bill,* or, upon preſentment, if an inland bill, *proteſt* muſt be made for non-acceptance at the place of his abode, by a notary-public, who is to be witneſs of that *refuſal;* which proteſt ſhould, for the ſecurity of the *preſenter,* be returned the firſt poſt to the *remitter,* that he may furniſh a new bill, or take proper meaſures with the parties concerned.

If an *accepted bill* be not paid *on demand,* the very day it falls due, it muſt be noted, that is, put into the hands of a *notary-public,* by the *preſenter,* in order to have a *proteſt* drawn up, under a *copy* of the bill, for non-payment; which *proteſt,* within fourteen days at fartheſt, muſt be returned (but not the bill itſelf, unleſs for ſpecial reaſons) to the remitter, who paid the value, and who is to give ſatisfaction for his concern therein to the *preſenter,* and who will procure ſatisfaction of the *drawer,* not only with reſpect to the principal ſum, and the intereſt thereof from the day

of

of proteſt, but alſo, may recover the rechange of the ſaid ſum, with charges of proteſt, recharges, and intereſt thereon.

The neglect of proteſt in due time, leaves the *preſenter*, or *poſſeſſor* of a bill, no ſecurity but that of the *acceptant*: whereas he has otherwiſe the *drawer*, and every one of the *indorſers* (if any) beſides the *acceptant*, to depend upon for the *principal* and *damages*; and if but one of them prove ſufficient, he will be no loſer.

No bill of *exchange* can be proteſted, unleſs the *value* be mentioned therein to have been received, and the perſon named *of whom*; nor is it uſual among dealers to note an *inland bill* under 20 l. value; ſuch bills are commonly returned without *charges*; not but that it may, after acceptance, be lawfully done, if the bill be above 5 l. value.

If you diſcompt, or pay a debt with an inland bill, payable to *yourſelf* or *order*, you write your name on the back ſide, and deliver into the poſſeſſion of the perſon to whom you intend to make it over, which is called *indorſing*, whereby you aſſign all your property therein to him; and in caſe of the acceptant's failure before it be paid, *you* are, by virtue thereof, as reſponſible to ſuch your *aſſign* for the contents and damages, upon *proteſt* being made, as the *remitter* is to you, and the *drawer* to him. In like manner, let a *bill* be indorſed by *ſeveral* perſons, the *poſſeſſor*, or perſon to whom it was laſt aſſigned, in caſe of non-payment, cauſes proteſt to be made, which being returned to the *laſt indorſer*, *he* is obliged to ſatisfy the *laſt poſſeſſor*, as to the contents and charges, and returns it in the ſame manner to the ſecond, he to the third, *&c.* 'till at laſt it recurs upon the drawer, who is obliged to anſwer all damages, as before. In the ſame manner ought promiſſory notes to be treated, they being, by an act *anno 3tio et 4to Annæ Reginæ*, ſubject to the nature of *inland* bills of exchange.

If the *acceptant* of a bill ſhould chance to fail between the time of acceptance and that of payment, proteſt may be made in that caſe, for better ſecurity, before the bill become due; not but, by the good underſtanding among dealers, the damages, as, *brokage*, *intereſt*, *&c.* which would follow proteſt, are frequently prevented, eſpecially if the drawer, or any of the indorſers, be ſufficient perſons; for any of their correſpondents, out of reſpect, may re-accept the bill, for honour of the drawer or indorſer, if applied to by the poſſeſſor, after he has, for ſecurity of the re-accepter, cauſed the bill to be proteſted; with a declaration, that the bill was re-accepted for honour of the drawer, *&c.* under-writing it, *Accepted for honour of the drawer, per A. B.* Or, if the reſpect were ſhewn to an indorſer, *Accepted for honour of the indorſer C. D. per E. F.* In the ſame manner are to be ſerved ſuch bills as are drawn upon a perſon, who has not equivalent effects of the drawer's

drawer's in his hands, or who has not received due advice of the bill preſented to him for acceptance; which will intitle him to a legal claim upon the drawer, if he dare venture, under thoſe circumſtances, to honour his bills.—When theſe bills, *accepted under proteſt*, become due, it is the cuſtom of merchants to have a *ſecond* proteſt for non-payment, made by the *poſſeſſor*, with a declaration, as before, that the *re-accepter* did pay the ſame with charges, for honour as aforeſaid; which proteſts the *re-acceptant*, for his own ſecurity, will take care to return, with the firſt opportunity, to his friend and correſpondent, for whom he advanced the money.

Proteſt, for better ſecurity may alſo be made, if the acceptant be under an ill repute; upon which, if he give ſecurity for the payment of the bill in due time, the ſecurity becomes reſponſible, as well as the drawer, ſhould the acceptant prove inſolvent.

After bills of exchange become due, whether *inland* or *foreign*, payable at ſight or otherwiſe, there are, by cuſtom of merchants, certain *days of grace* allowed the accepter, over and above the time preſcribed by the bill, which are more or leſs, according to the uſage of the country wherein they are to be paid: as, in Rotterdam they allow *three* days; Rouen, *five*; Paris, *ten*; Hamburgh, *twelve*; Antwerp and Madrid, *fourteen*: and London always *three*: And on the *third* day, before ſun-ſet, payment muſt be demanded on the part of the preſenter: and if not complied with, the bill muſt that very day (being the utmoſt time allowed by the law for that purpoſe) be *noted*, in order to be *proteſted* for *non-payment*.

The *drawer* of a bill ſhould always, the ſame poſt, take care to give his *correſpondent* notice, by letter, that he has drawn upon him for ſo much, payable to ſuch a perſon, to prevent its being *proteſted*, and ſent him back *non-accepted*, for want of due *advice*; for in that caſe, his correſpondent may refuſe to accept, till advice arrive, if the bill mention advice to be expected.

If a bill fall due on a *Sunday*, or other great holiday, it is to be demanded and paid, or proteſted, the day *before*. In any other caſe, no bill of exchange ought to be paid by the accepter before it be *fully* due, unleſs the remitter ſhall ſignify his allowance of it in writing. For, as the remitter delivered his money to the drawer, in order to have it paid again to ſuch perſon as he ſhall direct, it is, and ought to be, in his power to guide, and even divert the payment, by altering the bill, and making it payable to any other perſon whom he ſhall think fit, during the whole interval between the acceptance and day of payment. And if the acceptant ſhall voluntarily pay it before to any one, and that perſon ſhould fail, before it fall due, he will be liable to pay it to the remitter's order a ſecond time.

DIRECTIONS to be obſerved in ſending BANK BILLS or NOTES by the POST, that they may be recovered in Caſe the MAIL be robbed.

The Bank of England recommends to perſons to write on the back of the Bill or Note, the proprietor's name, and the place where ſent *from* and *to*, with the day of the month in words, not in figures, (as the latter may be more eaſily altered.) For example: *Edinburgh June the third* 1776, per *poſt to John Adamſon, Eſq; at London, proprietor of this note.*

THOMAS CAREFUL.

On the face of the Note write as follows, acroſs it:

Upon notice that the mail be robbed, ſtop payment at the bank, until advice from

JOHN ADAMSON or THOMAS CAREFUL.

If there be occaſion afterward to remit the ſame note to York, or to any other place, *by poſt*, write thus on the back: *London, June the eighth* 1776, per *poſt* to York, to

WILLIAM STEVENS.

The order to ſtop payment when ſent again *per* poſt, need not be repeated, only ſigned as above, and ſo on, by every one who may afterward ſend it *per* poſt.

A copy of the note and indorſement ſhould be taken before it be ſent away.

Of

Of the COMPARISON *of* WEIGHTS *and* MEASURES.

EXAMPLES.

1. If 8 ells at Antwerp make 14 ells at London, how many ells at Antwerp will be equal to 336 ells at London?

Anſwer, 192 ells.

2. If 112 lb. at London make 98 lb. at Liſbon, how many lb. at London are equal to 1246 lb. at Liſbon?

Anſwer, 1424 lb.

Of CONJOINED PROPORTION.

CONJOINED PROPORTION is when the coins, weights, or meaſures of ſeveral countries are compared in the ſame queſtion; or in other words, it is a joining together of many proportions.

CASE I. *When it is required to know how many of the* firſt *ſort of* coin, weight, *or* meaſure, *mentioned in the* queſtion, *are equal to a given number of the* laſt: Place the numbers alternately, beginning at the *left hand*, and let the laſt number ſtand on the left hand; then multiply the firſt rank continually together for a dividend, and the ſecond for a diviſor, and the quotient ariſing from the diviſion will be the anſwer.

N. B. Conjoined Proportion may be proved by making as many ſtatings in the ſingle rule of three as the nature of the queſtion may require.

EXAMPLES.

1. If 140 lb. at Leghorn, are equal to 160 lb. at Naples, and 40 lb. at Naples, are equal to 30 lb. at London, how many lb. at Leghorn, are equal to 550 lb. at London?

Anſwer, 641$\frac{2}{3}$ lb.

2. If 25 lb. at London be 21 at Nürenburgh; 86 lb. at Nürenburgh, 90 lb. at Hamburgh; 44 lb. at Hamburgh, 47 lb. at Lyons; how many lb. at London, are equal to 96 lb. at Lyons?

Anſwer, 102 $\frac{2094}{8883}$ lb.

CASE II. *When it is required to know how many of the* laſt *ſort of* coin, weight, *or* meaſure, *mentioned in the queſtion, are equal to a given number of the* firſt: Place the numbers alternately, as in caſe 1. but obſerve to place the *laſt* number on the *right* hand; then multiply the *ſecond rank* for a dividend, and the *firſt* for a diviſor; the quotient ariſing from the diviſion of theſe two terms will be the anſwer.

EXAMPLES.

1. If 12 lb. at London make 11 lb. at Amſterdam, 92 lb. at Amſterdam 112 lb. at Toulouſe, how many lb. at Toulouſe are equal to 60 lb. at London?

Anſwer, $66\frac{2}{23}$ lb.?

2. If 200 lb. Engliſh make 190 lb. Flemiſh, and 38 lb. Flemiſh make 50 lb. at Bolonia; how many lb. at Bolonia are equal to 156 lb. Engliſh?

Anſwer, 195 lb.

Of ARBITRATION *of* EXCHANGES.

N. B. The above caſes will ſerve to compute the arbitration of *exchanges*; only remember, that after having found the value of the ſum to be required by ſuch exchange, you muſt compute its value by the direct exchange, or by any other circular exchange; and by comparing the values together, you will perceive the moſt advantageous method.

EXAMPLES.

1. If bills at London on Amſterdam be at 34 *s.* $3\frac{1}{4}$ *d.* Flemiſh *per* pound Sterling, and on Paris at $32\frac{5}{8}$ d. *per* crown; what ought to be the rate of exchange between Paris and Amſterdam?

Anſwer, 59, 9 d.

2. If London would remit 1000 L. Sterling to Spain, the direct exchange being $42\frac{1}{2}$ d. *per* piaſtre of 272 mervadies; it is required which will be moſt profitable, the direct remittance, or by remitting firſt to Holland, at 35 s. *per* L. thence to France, at 58 d. *per* crown; thence to Venice, at 100 crowns *per* 60 ducats; and thence to Spain, at 360 mervadies *per* ducat.

Anſwer, 109 $\frac{13}{19}$ piaſtres in favour of the circular exchange.

Of ALLIGATION.

ALLIGATION is the method of mixing two or more ſimples of different qualities, ſo that the compoſition may be of a middle quality:

quality: It conſiſts of two kinds; *viz.* Alligation medial and Alligation alternate.

Of ALLIGATION MEDIAL.

ALLIGATION medial is when the quantities and prices of ſeveral things are given, to find the mean price of the mixture compounded of thoſe things.

RULE. As the whole compoſition is to its total value, ſo is any part of the compoſition to its mean price.

EXAMPLES.

1. A corn factor mixes 10 buſhels of wheat, at 6 s. *per* buſhel, with 12 buſhels of rye at 4 s. 7 d. *per* buſhel, with 18 buſhels of barley at 2 s. 6 d. *per* buſhel; Pray what is the value of 1 buſhel of this compoſition?

Anſwer, 4 s. *per* buſhel.

2. A vintner mixes 6 gallons of wine at 4 s. 10 d. *per* gallon, with 12 gallons at 5 s. 6 d. and 8 gallons at 6 s. $3\frac{1}{4}$ d. what is a gallon of this compoſition worth?

Anſwer, 5 s. 7 d.

3. A goldſmith melted together 4 oz. of gold of 22 carats fine, 10 oz. of 21 carats fine, and 5 oz. of 18 carats fine: Pray what is the quality or fineneſs of the compoſition.

Anſwer, $20\frac{8}{19}$ carats fine.

Of ALLIGATION ALTERNATE.

CASE I.

Alligation alternate is the method of finding what quantity of each of the ingredients whoſe rates are given, will compoſe a mixture of a given rate.

RULE. 1. Place the rates of the ſimples in a column under each other; thus,

Mean 20 d.

	Price.	
a	9	4
b	12	10
a	24	11
b	30	8

2. Connect or link with a continued line, the rate of each ſimple or ingredient which is leſs than that of the compound, with one or any number of thoſe which are greater than the compound; and each greater rate with one or any number of the leſs.

3. Write the difference between the mixture rate and that of each of the ſimples oppoſite the rates with which they are linked.

4. Then if only one difference ſtand againſt any rate, it will be the quantity belonging to that rate; but if there be ſeveral, their ſum will be the quantity.

Note, It appears from the rule, that many of the queſtions will admit of an infinite variety of anſwers, by increaſing or decreaſing the quantities in any proportion, or by increaſing or decreaſing any one, or more ſingle pairs of the yoke-fellows in any proportion, and leaving the other quantities as they are.

EXAMPLES.

1. How much corn at 2s. 6d. at 3s. 8d. at 4s. and at 4s. 8d. *per* buſhel, muſt be mixed together that the compound may be worth 3s. 10d. *per* buſhel?

Anſwer, 2 *at* 2s. 6d. 2 *at* 3s. 8d. 3 *at* 4s. *and* 3 *at* 4s. 8d.

2. To mix gold of 19 carats fine, with gold of 23, of 21, of 18, and of 17 carats fine, that the compound may be 20 carats fine; what quantity muſt be taken of each?

Anſwer, 2 *at* 17, 18 *and* 19; *and* 3 at 21 *and* 23.

3. Suppoſe one were to mix four kinds of wheat at the following prices; *viz.* at 4s. at 3s. 6d. at 3s. and at 2s. 2d. *per* buſhel; how many buſhels of each ſort muſt be taken that a buſhel of the mixture may be worth 3s. 3d.?

Anſwer, 3 buſhels *at* 4s. 1 *at* 3s. 6d. 9 *at* 3s. *and* 3 buſhels at 2s. 2d. *or in that proportion.*

4. A druggiſt hath ſeveral ſorts of tea, *viz.* one ſort at 12s. *per* lb. another at 11s. a third at 9s. and a fourth at 8s. *per* lb.—I demand how much of each ſort he muſt mix together, that the whole quantity may be afforded at 10s. *per* lb.?

	lb.	s.	*per* lb.
1. Anſ.	2	*at* 12	
	1	—11	
	1	— 9	
	2	— 8	

	lb.	s.	*per* lb.
2. Anſ.	3	*at* 12	
	2	—11	
	2	— 9	
	3	— 8	

	lb.	s.	*per* lb.
3. Anſ.	1	*at* 12	
	2	—11	
	2	— 9	
	1	— 8	

	lb.	s.
4. Anſ.	1	*at* 12
	3	—11
	3	— 9
	1	— 8

	lb.	s.
5 Anſ.	3	*at* 12
	1	—11
	3	— 9
	2	— 8

	lb.	s.
6. Anſ.	2	*at* 12
	3	—11
	1	— 9
	3	— 8

7. Anſwer, 3 lb. of each ſort.

Note, Theſe *ſeven anſwers* ariſe from as many various ways of linking the *rates* of the ingredients together.

Ex-

CASE II. When the *rates* of all the *things*, the *quantity* of but *one* of them, and the *mean rate* of the whole *mixture* are given, to find the ſeveral *quantities* of the reſt, in proportion to the *quantity* given: take the differences between each *price*, and the *mean rate*, and place them alternately as at *Caſe* 1. Then ſay, As the *difference* againſt the given *quantity*, is to the reſt of the *differences* ſeverally; ſo is the *given* quantity to the ſeveral quantities *required*, each to its reſpective difference.

EXAMPLES.

1. A tobacconiſt hath 30 lb. of tobacco at 24 d. *per* lb. which he would mix with ſome at 12 d. ſome at 9 lb. and ſome at 7 d. *per* lb. how much of each ſort muſt he take to mix with that 30 lb. that he may ſell a lb. of the mixture for 16 d?

	24 *a*	4 7 9	20	Now the proportion will ſtand thus;
16	12 *a*	8	8	as 20 : 8 : : 30 : 12,—ſo that he muſt
	9 *a*	8	8	have 12 lb. of each ſort of the other
	7 *a*	8	8	to mix with 30 lb. of the beſt.

2. A man being determined to mix 12 buſhels of oats, at 18 d. *per* buſhel, with barley at 2 s. 6 d. with rye at 3 s. and with wheat at 4 s. *per* buſhel, I demand how much barley, rye, and wheat muſt be mixed with the 12 buſhels of oats, that the whole quantity may be worth 3 s. 6 d. *per* buſhel.

Anſwer, 12 buſhels of *barley*, 12 of *rye*, and 84 of *wheat*.

3. How much gold of 15, of 17, and of 22 carats fine, muſt be mixed with 5 ounces of 18 carats fine, that the compoſition may be 20 carats fine?

Anſwer, 3 oz. *of* 15, 5 *of* 17, *and* 25 *of* 22 *carats* fine.

Of ALTERNATION TOTAL.

CASE III. When the *rates* of the ſeveral *things*, the *quantity* to be compounded, and the *mean rate* of the whole *mixture* are given, to find how much of each ſort will make up the quantity; place the *difference* between the ſeveral *prices*, and the *mean rate* alternately, as at *Caſe* 1. Then ſay, As the ſum of the differences is to the *whole compoſition*, ſo is the difference of each *rate* to the *quantity* of the ſame *rate*.

EXAMPLES.

1. A merchant would mix 4 ſorts of wine, of ſeveral prices: one at 6 s. *per* gallon, another at 8 s. the third at 11 s. and the other

other at 15 s. *per* gallon; of theſe he would have a mixture to contain 50 gallons, and the price to be at 9 s. *per* gallon: what quantity muſt he have of each ſort of wine?

Anſwer, $8\frac{1}{3}$ gallons *at* 6 s. 25 *at* 8 s. $12\frac{1}{2}$ *at* 11 s. *and* $4\frac{1}{6}$ gallons, *at* 15 s. *per* gallon.

	6 *a*	2	Then	As	12	:	50	: :	2	: $8\frac{1}{3}$
9 s.	8 *b*	6		As	12	:	50	: :	6	: 25
	11 *a*	3		As	12	:	50	: :	3	: $12\frac{1}{2}$
	15 *b*	1		As	12	:	50	: :	1	: $4\frac{1}{6}$
		12								50 *Proof*

2. A Goldſmith has ſeveral ſorts of gold, *viz.* ſome of 24 carats fine, ſome of 22, and ſome of 18 carats fine; and he would have compounded of theſe ſorts the quantity of 60 oz. of 20 carats fine; I demand how much of each ſort he muſt take?

Anſwer, 12 *at* 24 carats fine, 12 *at* 22, and 36 *at* 18.

3. A merchant would mix 4 ſorts of wine, of ſeveral prices; one at 6 s. *per* gallon, another at 8 s. a third at 11 s. and the other at 15 s. *per* gallon: of theſe he would have a mixture to contain 50 gallons worth 9 s. *per* gallon; what quantity muſt he have of each ſort of wine?

Anſwer, $8\frac{1}{3}$ gallons *at* 6 s. *per* gallon, 25 *at* 8 s. $12\frac{1}{2}$ *at* 11 s and $4\frac{1}{6}$ *at* 15 *per* gallon.

"*N. B.* To this caſe belongs the queſtion concerning king Hiero's crown, which the workmen had debaſed with ſilver, or copper; and to find what quantity of gold and copper was in it, the famous Archimedes is ſaid to have made two other crowns of the ſame weight with the former, the one of gold, and the other of ſilver, or copper, and by putting each into a veſſel full of water, the quantity of water expelled by them determined their ſpecific bulks: from which, and their given weight, it is eaſier to determine the quantities of gold and copper in the crown by this caſe of alligation, than by an algebraic proceſs. I ſhall aſſume the ſame numbers which Ronayne has in his algebra; thus,"

"Suppoſe the weight of each crown to be 10 lb. and that the water expelled by the copper or ſilver was 92 lb. by the gold 52 lb. and by the compound crown was 64 lb. that is, their ſpecific bulks were as 92, 52, and 64".

Here then the rates of the ſimples are 92 and 52, and of the compound 64; whence.

64 | 92) 12 of copper. 52) 28 of gold. { The ſum of theſe is 12+28=40, which ſhould have been 10, wherefore by our rule

40 : 10 :: { 12 : 3 lb. of copper. 28 : 7 lb. of gold.

CASE

CASE IV. If more than one of the ſimples be limited, find by Caſe 1ſt. of Alligation medial, what will be the rate of a mixture, made of the given quantities of the limited ſimples only, then conſider this as the rate of a limited ſimple, whoſe quantity is the ſum of the firſt given limited ſimples, from which and the rates of the limited ſimples, by the laſt caſe, calculate the quantity.

EXAMPLES.

1. How much wine at 5 s. 6 d. and at 6 s. *per* gallon, muſt be mixed with 3 gallons at 5 s. and 3 gallons at 4 s. *per* gallon, that the mixture may be worth 5 s. 4 d. *per* gallon?

Anſwer, 6 gallons *at* 5 s. 6 d. and 6 gallons *at* 6 s. a gallon.

2. How much gold of 15 and 17 carats fine, muſt be mixed with 5 ounces of 18, and 13 ounces of 22 carats fine, that the compoſition may be 20 carats fine?

Anſwer, 2 oz. of each ſort.

Of the POWERS *and* ROOTS *of* NUMBERS.

1. Putting A for any number, its 1ſt, 2d, 3d, &c. Powers will be A, A×A, A×A×A, &c. and its 1ſt, 2d, 3d, &c. Roots will be thoſe numbers whoſe 1ſt, 2d, and 3d, &c. Powers are equal to A: thus, the 1ſt, 2d, and 3d, Powers of 2 are 2, 4, and 8; and the 1ſt, 2d, and 3d Roots of 64 are 64, 8, and 4, reſpectively.

2. The 2d and 3d Powers are commonly called the Square and Cube; and the 2d and 3d Roots, the Square Root and Cube Root: thus, 16 is the Square of 4, and 8 is the Cube of 2; alſo, 4 is the ſquare root of 16, and 2 is the Cube Root of 8.

3. Putting A for any number as before, its 1ſt, 2d. 3d, &c. Powers and Roots may be denoted reſpectively thus,

Powers $A^1, A^2, A^3, A^4, A^5, A^6$, &c.

Roots $A^{\frac{1}{1}}, A^{\frac{1}{2}}, A^{\frac{1}{3}}, A^{\frac{1}{4}}, A^{\frac{1}{5}}, A^{\frac{1}{6}}$, &c.

But it muſt be obſerved, that when the given number conſiſts of ſeveral terms, a line muſt be drawn over them, otherwiſe the ſign of the Power or Root (commonly called the Index or Exponent) will relate only to the term over which it ſtands.—To make this

method

method of Notation plain, take these examples,—$3^2=9$, $\overline{2+4}^2=36$, $2\times4^2=18$, $\left|\frac{4}{5}\right|^3=\frac{64}{125}$, $\frac{4}{5}^3=\frac{64}{5}\,\frac{4}{5^3}=\frac{4}{125}$, $4^{\frac{1}{2}}=2$, $\overline{25\times39}^{\frac{1}{2}}=8$, $25^{\frac{1}{2}}+39=44$, $\left|\frac{8}{125}\right|^{\frac{1}{3}}=\frac{2}{5}$, $\frac{8^{\frac{1}{3}}}{125}=\frac{2}{125}\,\frac{8}{125}^{\frac{1}{3}}$ $=\frac{8}{5}$, $\left|2^2\right|^3=64$, and $\left|64^{\frac{1}{2}}\right|^{\frac{1}{3}}=2$.

4. A Power of a root, or a root of a power, may be denoted by putting the Exponent of the power above the denominator of the exponent of the root: thus, the square of the cube root, or the cube root of the square of 8 may be denoted by $8^{\frac{2}{3}}$.

5. Powers or roots denoted as above are called exponential numbers, the chief properties of which are—1st, When a number has two exponents, they may change places: thus, $\left|8^{\frac{1}{2}}\right|^{\frac{1}{3}}=\left|8^{\frac{1}{3}}\right|^{\frac{1}{2}}=2^{\frac{1}{2}}$.—2d, The terms of a fractional exponent may be mutiplied or divided each by the same number: thus, $8^{\frac{12}{9}}=8^{\frac{4}{3}}=2^4=16$.—3d, When a number has two exponents, you may put their product instead of them: thus, $\left|8^{\frac{1}{2}}\right|^{\frac{2}{3}}=8^{\frac{2}{6}}=8^{\frac{1}{3}}=2$. —— 4th. Putting m, n, for any exponents, and A as before, then will $A^m\times A^n=A^{m+n}$: thus, $8^2\times8^3=8^5$, and $8^{\frac{1}{2}}\times8^{\frac{5}{6}}=8^{\frac{4}{3}}=16$.— 5th, Putting B for any other number, we have $A^m\times B^m=\overline{A\times B}^m$ thus, $125^3\times8^3=1000^3$, $9^{\frac{1}{3}}\times24^{\frac{1}{3}}=216^{\frac{1}{3}}=6$, and $5^{\frac{1}{2}}\times5^{\frac{1}{2}}=25^{\frac{1}{2}}=5$.— 6th, $A^m\div A^n=A^{m-n}$ when n is less than m; when it is greater, place the Difference of m and n over A as an Exponent, and 1 over the whole as a Numerator: thus, $8^5\div8^2=8^3$, $8^{\frac{5}{6}}\div8^{\frac{1}{2}}=8^{\frac{1}{3}}=8^3=2$, and $8^2\div8^4=\frac{1}{8^2}=\frac{1}{64}$.—7th, $A^m\div B^m=\overline{A\div B}^m$: thus, $8^3\div2^3=4^3$, and $27^{\frac{1}{2}}\div3^{\frac{1}{2}}=9^{\frac{1}{2}}=3$.

of

TABLE of the first fourteen powers of the nine digits.

1 power	1	2	3	4	5	6	7	8	9
2 power	1	4	9	16	25	36	49	64	81
3 power	1	8	27	64	125	216	343	512	729
4 power	1	16	81	256	625	1296	2401	4096	6561
5 power	1	32	243	1024	3125	7776	16807	32768	59049
6 power	1	64	729	4096	15625	46656	117649	262144	531441
7 power	1	128	2187	16384	78125	279936	823543	2097152	4782969
8 power	1	256	6561	65536	390625	1679616	5764801	16777216	43046721
9 power	1	512	19683	262144	1953125	10077696	40353607	134217728	387420489
10 power	1	1024	59049	1048576	9765625	60466176	282475249	1073741824	3486784401
11 power	1	2048	177147	4194304	48828125	362797056	1977326743	8589934592	31381059609
12 power	1	4096	531441	16777216	244140625	2176782336	13841287201	68719476736	282429536481
13 power	1	8192	1594323	67108864	1220703125	13060694016	96889010407	549755813888	2541865828329
14 power	1	16384	4782969	268435456	6103515625	78364164096	678223072849	4398046511104	22876792454961

Of INVOLUTION.

INVOLUTION is the raiſing of powers from any propoſed root.

Thus : 3 is the firſt power of 3.
3 × 3 = 9 is the ſecond power of 3.
3×3 × 3 = 27 is the third power of 3.
3×3×3 × 3 = 81 is the fourth power of 3.
&c. &c.

And in this manner is calculated the preceding table.

To *involve a* number *into any given* Power.

RULE. Multiply the given number, or firſt power, continually by itſelf, till the number of mutiplications be 1 leſs than the index of the power to be found, and the laſt product will be the power required.

Note, "Whence, becauſe fractions are multiplied by taking the products of their numerators and of their denominators, they will be involved by raiſing each of their terms to the power required.—And if a mixt number be propoſed, either reduce it to an improper fraction, or reduce the vulgar fraction to a decimal, and proceed by the rule.

EXAMPLES.

1. What is the ſecond power of 27? Anſwer, 729.
2. What is the ſecond power of 3,15? Anſwer, 9,9225.
3. What is the ſecond power of ,022? Anſwer, ,000484.
4. What is the third power of 2,5? Anſwer, 15,625.
5. What is the fourth power of 71,8? Anſwer, 26576499,4576.
6. What is the ſecond power of $\frac{2}{7}$? Anſwer, $\frac{4}{49}$.
7. What is the third power of $\frac{3}{11}$? Anſwer, $\frac{27}{1331}$.
8. What is the ſecond power of $3\frac{2}{5}$? Anſwer, 11,56.

Of EVOLUTION.

EVOLUTION, or the extraction of roots, being directly the contrary to involution, or raiſing of powers, is performed by converſe operations.

The power is firſt to be prepared for extraction, or evolution, by dividing it, from the place of units, to the *left* in integers, and

to

to the *right* in decimal fractions, into periods containing each ſo many places of figures as are denominated by the index of the root, if the power contain a complete number of ſuch periods: if it do not, the defect will be either on the right hand, or left, or both; if the defect be on the right hand, it may be ſupplied by annexing cyphers, and after this whole periods of cyphers may be annexed to continue the extraction with, if neceſſary; but if there be a defect on the left, ſuch defective period muſt remain unaltered, and is accounted the firſt period of the given number, juſt the ſame as if it were complete.

Now this diviſion may be conveniently made by writing a point over the place of units, and alſo over the laſt figure of every period on both ſides of it; that is, over every ſecond figure if it be the ſecond root, over every third, if it be the third root, *&c.* Thus, to point this number

21035896,12735 for the ſecond root it will be 21035896,127350;

but for the third root, thus; 21035896,127350; and for the fourth, thus; 21035896,12735000.

Note, The root will contain juſt ſo many places of figures as there are periods or points in the given power; and they will be integers, or decimals, reſpectively as the periods are ſo from which they are found, or to which they correſpond; that is, there will be ſo many integer figures in the root, as there are periods of integers in the given number.

RULE *for extracting the ſquare or ſecond rate of* integers, *or* decimals; *or* both mixed together.

1. Having pointed the given number as before directed, which points ſhew the number of figures the root will conſiſt of, Take the neareſt ſquare number in the firſt point and ſubtract it therefrom, and place the root of the ſquare on the *right* of the given number in the manner of a quotient in diviſion, for the firſt figure of the root.

2. To the remainder annex the ſecond period for a dividend; and on the left thereof write the double of the root already found, as a diviſor.

3. Seek how often the diviſor is contained in the dividend (reſerving always the unit's place,) and place the ſaid figure in the root, and likewiſe on the right hand of the diviſor: multiply the diviſor by the figure laſt found in the root, and ſubtract the product from the dividend; to the remainder join the figures in the next point for a new dividend.

4. Find a new diviſor by doubling the figures already found in the root; and from theſe find the next figure in the root, as directed laſt; and continue the operation ſtill in the ſame manner, till you have brought down all the periods.

N. B. When any thing remains, add *two* cyphers and proceed as before, the figure in the root ariſing therefrom, will be a decimal; and by continuing to add *two* cyphers you may have as many decimal places as you pleaſe.

EXAMPLES.

1. What is the ſquare root of 1369?

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1369 | 37 Anſwer.
  9
-----
67 | 469
     469
-----
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2. What is the ſquare root of 18496? Anſwer, 136.

3. What is the ſquare root of 292,41? Anſwer, 17,1.

4. What is the ſquare root of ,002809? Anſwer, ,053.

5. What is the ſquare root of 6? Anſwer, 2,44948.

6. What is the ſquare root of 11? Anſwer, 3,3166.

RULES *for the* SQUARE ROOT *of* VULGAR FRACTIONS *and mixt* NUMBERS.

After reducing the fraction to its loweſt terms, for this, and all other roots; then,

1. Extract the *root* of the numerator for a new *numerator*, and the root of the denominator for a new denominator, which is the beſt method provided the denominator be a complete power. But if it be not,

Multiply the numerator and denominator together, take the root of the product; this root being made the numerator to the denominator of the given fraction, or made the denominator to the numerator of it, will form the fractional part required. That is, $\sqrt{\frac{a}{b}} = \frac{\sqrt{ab}}{b} = \frac{b}{\sqrt{ab}}$; and this rule will ſerve whether the root be *finite* or *infinite*; Or,

3. Reduce the vulgar fraction to a decimal, and extract its root.

4. Mixt

4. Mixt numbers may either be reduced to improper fractions, and extracted by the firſt and ſecond rule; or the vulgar fraction may be reduced to a decimal, then joined to the integer, and the root of the whole extracted.

EXAMPLES.

1. What is the ſquare root of $\frac{27}{147}$? Anſwer, $\frac{3}{7}$.
2. What is the ſquare root of $\frac{3456}{5400}$? Anſwer, $\frac{4}{5}$.
3. What is the ſquare root of $20\frac{1}{4}$? Anſwer, $4\frac{1}{2}$.
4. What is the ſquare root of $\frac{5}{12}$? Anſwer, ,64549.
5. What is the ſquare root of $17\frac{16}{25}$? Anſwer, $4\frac{1}{5}$.
6. What is the ſquare root of $76\frac{14}{17}$? Anfwer, 8,7649+

Note, Such quantities, whoſe roots cannot be extracted without having a remainder, are called *ſurds* or irrational quantities.

APPLICATION *and* USE *of the* SQUARE ROOT.

To find a mean proportional betwixt any two numbers.

RULE. Multiply the given numbers together and extract the ſquare root of the product, which root will be the mean proportional ſought.

1. What is the mean proportional betwixt 49 and 64?
Anſwer, 56.
2. What is the mean proportional between 144 and 121?
Anſwer, 132.

To find the ſide of a SQUARE *equal in* AREA *to any given* SUPERFICIES *whatever.*

RULE. Find the content of the given AREA, and the root is the ſide of the ſquare ſought.

EXAMPLES.

1. If the area of a circle be 17,184, what is the ſide of a ſquare equal in area thereto? Anſwer, 4,147+.

2. The area of a triangle is 356, what is the ſide of a ſquare equal in area to the ſame? Anſwer, 18,86+.

3. Suppoſe a general had an army of 567009 men, and he would form them into a ſquare, how many men muſt be in rank and file?
Anſwer, 753.

Note,

Note, 1. If you would have the number of men be double, triple, or quadruple, &c. as many in rank as file; extract the ſquare root of $\frac{1}{1}$, $\frac{1}{2}$, $\frac{1}{4}$ &c. of the given number of men, and that will be the number of men in file, which double, triple, quadruple, &c. the product is the number in rank.

4. Let 8192 men be formed into an oblong, ſo that the number in rank may be double the file? Anſwer, 64 in file and 128 in rank.

5. Let 42364 men be placed ſo that there may be 89 in file, how many muſt be in rank? Anſwer, 476.

6. If it be required to place 6068 men ſo that there may be 82 in rank, and 74 in file, and to ſtand 3 feet diſtance in rank, and as much in file; how much ground do they ſtand on?

Anſwer, 53217 ſquare feet.

*** To anſwer this, or any of the kind, uſe the following proportion:—As unity : is to the diſtance :: ſo is the number in rank leſs by one : to a fourth number:—Next do the ſame by the file, and multiply the two numbers found by the above proportion, and the product will be the anſwer.

Note, 2. The above rule will be found uſeful in planting trees, as well as placing men, having the diſtance of ground betwixt each given: *e. g.*

7. Suppoſe a gentleman would plant on a waſte piece of ground, 864 young trees, ſo that the length ſhall be to the breadth as 3 to 2, and the diſtance of each tree from one another 18 yards; the queſtion is, how many trees muſt be in length and how many in breadth, and how many ſquare yards of ground they ſtand on.

To reſolve any queſtion of this nature do thus; ſay, by the rule of three, as the ratio in length : is to the ratio in breadth : : ſo is the number of trees: to a fourth number, whoſe ſquare root is the number in breadth: and as the ratio in breadth : is to the ratio in length : : ſo is the whole number : to a fourth, whoſe root is the number in length:—By this you will find the number in length 36, and in breadth 24, and by the laſt example the quantity of ground 260820 ſquare yards.

Note, 3. The areas of circles are to one another as the ſquares of their diameters; therefore ſquare the diameter, add to it the parts deficient, extract the ſquare root of the laſt ſum, which will be the anſwer:—If leſs be required, ſubtract the overplus, and the ſquare root of the remainder will be the anſwer.

8. If a ciſtern can be emptied by a cock in 1 hour, whoſe diameter is $\frac{1}{2}$ inch, I deſire to know the diameter of a cock that will empty it in $7\frac{1}{2}$ minutes. Anſwer, 1,4 inch.

9. If a pipe whoſe diameter is 1,6 inch fill a ciſtern in 4 hours, in what time will a pipe, whoſe diameter is 3,2 inches take to fill the ſame? Anſwer, 1 hour.

10. A pipe of 6 inches bore will be 3 hours in running off a certain quantity of water: In what time will 4 pipes, each 3 inches bore, be *in diſcharging* double the quantity? Anſwer, 6 hours.

Note 4. The ſquare of the hypothenuſe, or the longeſt ſide of a right-angled triangle, is equal to the ſum of the ſquares of the other two ſides; and conſequently, the differences of the ſquares of the hypothenuſe, and either of the other ſides, is the ſquare of the remaining ſide.

11. A line 27 yards long, will exactly reach from the top of a fort, on the oppoſite bank of a river, known to be 23 yards broad: the height of the wall is required?

Anſwer, 42 feet, 5 inches.

12. Two ſhips ſet ſail from the ſame port; one of them goes due eaſt, 50 leagues; the other due north 84: How far are they aſunder? Anſwer, $97\frac{3}{4}$ leagues.

13. The height of an elm, growing in the midſt of a circular iſland, 30 feet in diameter, plumbs 53 feet; and a line ſtretched from the top of a tree ſtraight to the hither edge of the water, 112 feet: What then is the breadth of the moat, ſuppoſing the land on each ſide of the water to be level? Anſwer, $83\frac{2}{3}$ feet.

14. A ladder 40 feet long may be ſo planted, as to reach a window 33 feet from the ground, on one ſide the ſtreet; and without moving it at the foot, will do the ſame by a window 21 feet high, on the other ſide: The breadth of the ſtreet is required?

Anſwer, $56\frac{6}{10}$ feet.

Of the CUBE ROOT.

A CUBE is any number multiplied by its *ſquare*. To extract the cube root, is to find ſuch a number, as being multiplied into its *ſquare* ſhall produce the given number.

Note, The given cube muſt be prepared for extraction, by reſolving it into periods or points, conſiſting of three digits each; the number of points ſhew how many figures the root conſiſts of.

The exact cube Root, (or the neareſt to it) of any three figures may be found by inſpection into the table of powers: thus, if the cube root of 729 be required, it will be 9; becauſe $9\times9\times9=729$: But if the cube root of 46656 were required, it will conſiſt of *two* figures.

RULE

RULE for extracting the *Cube* Root.

Having pointed the given number as directed, take the greateſt root in the firſt period, and ſubtract its cube from the ſaid period, and to the remainder, bring down the next period, and call it your *dividend*; then call this figure in the root with a cypher annexed to it x, and ſquare that number, and multiply that ſquare by 3 and call this your *diviſor*, and proceed as in common diviſion, calling your next figure y; which place in the root: then find the values of $3x^2y$, $3xy^2$ and y^3 the ſum of which take from what you called the *dividend*; to the remainder bring down another period, and call the figures in the root, with a cypher annexed, x; proceeding in the ſame manner as before, till all the periods be brought down; and if decimals be required in the root, bring down periods of cyphers to the remainder, which will give the root to any exactneſs required.

EXAMPLES.

1. What is the cube root of 46656? Anſwer, 36.

46656(36 anſwer.
27

$30=x$, $6=y$ } $3x^2=2700$) 19656

$3x^2y =$ 16200
$3xy^2 =$ 3240
$y^3 =$ 216

19656

2. What is the cube root of 303464448? Anſwer, 672

3. What is the cube root of 41,063625? Anſwer, 3,45

4. What is the cube root of 7612,812161? Anſwer, 19,67+.

* 5. What is the cube root of ,00697612 18? Anſw. 19107+.

6. What is the cube root of $\frac{648}{3000}$? Anſwer, $\frac{3}{5}$.

7. What is the cube root of $\frac{252}{1883}$? Anſwer, $\frac{2}{3}$

* *Note*, The decimal fraction muſt conſiſt of ternaries of places; as, *three ſix*, &c.

AP-

APPLICATION *and* USE *of the* CUBE ROOT.

To find *two* mean proportionals between any two given numbers.

RULE. Divide the *greater* by the leſs, and extract the cube root of the quotient, which root muſt be multiplied by the leaſt of the given numbers, and the product will be the *leaſt*: and this product multiplied by the ſame root gives the *greateſt*.

EXAMPLES.

1. What are the two mean proportionals between 5 and 320?
Anſwer, 20 and 80.

2. What are the two mean proportionals between 64 and 516?
Anſwer, 128 and 256.

Note, The ſolid contents of ſimilar figures are in proportion to each other, as the cubes of their ſimilar ſides or diameters.

3. If a bullet of 4 inches diameter weigh $9\frac{1}{2}$ lb. I demand the weight of another bullet whoſe diameter is 7 inches?
Anſwer, 50,9 lb.

4. If a globe of ſilver of one inch diameter be in value 14,4 ſhillings, what is the value of another globe of the ſame ſilver, whoſe diameter is 4 inches? Anſwer, 921,6 ſhillings.

5. If a cube of ſilver whoſe ſide is 3 inches, be worth 8 l. 17 s. 6 d. I demand the ſide of a cube of the like ſilver, whoſe value ſhall be 3 times as much? Anſwer, 4,35+ inches.

A GENERAL RULE FOR EXTRACTING THE ROOTS OF ALL POWERS.

1. PREPARE the given number for Extraction, by pointing off from the Unity Place, as the Root required directs.

2. Find the firſt figure in the Root by your own judgment, or by inſpection into the Table of Powers.

3. Subtract it from the given Number.

4. Augment the Remainder by the next Figure in the given number, that is, by the firſt figure in the next point, and call this your Dividend.

5. Involve the whole Root, laſt found, into the next inferiour Power to that which is given.

6. Multiply it by the Index of the given Power, and call this your Diviſor.

7. Find a Quotient figure by common diviſion, and annex it to the root.

8. Involve all the Root, thus found, into the given Power.

9. Subtract this Power (always) from as many points of the given Power as you have brought down, beginning at the loweſt place.

10. To the Remainder bring down the firſt figure of the next point for a new Dividend.

11. Find a new Diviſor as before, and in like manner proceed till the work be ended.

Of the RECIPROCAL *of* NUMBERS.

THE Reciprocal of any number will be found by dividing unity or 1 by it: thus the reciprocal of 25 is $\frac{1}{25}$=,04.—— Therefore inſtead of multiplying by any number, you may divide by its *reciprocal*, and the contrary: thus 75×25= 75÷,04=1875: and 75÷25= 75×,04=3.

Of PROPORTION *in* GENERAL.

NUMBERS are compared together to diſcover the relations they have to each other.

There muſt be two numbers to form a compariſon: the number which is compared, being written firſt, is called the antecedent; and that to which it is compared, the conſequent.

Numbers are compared to each other two different ways: the one compariſon conſiders the difference of the two numbers, and is called arithmetical relation, the difference being ſometimes named the arithmetical ratio; and the other conſiders their quotient, which is termed geometrical relation, and the quotient the geometrical ratio. So of theſe numbers 6 and 3; the difference, or arithmetical ratio, is 6—3=3; and the geometrical ratio is $\frac{6}{3}$=2.

Note,

Note, Ratios are here, always, conſidered as the reſult of the greater term of compariſon diminiſhed, or divided, by the leſs; not regarding which of them be the antecedent.

If two or more couplets of numbers have equal ratios, or differences, the equality is termed proportion; and their terms ſimilarly poſited, that is, either all the greater, or all the leſs taken as antecedents, and the reſt as conſequents, are called proportionals. So the two couplets 2, 4, and 6, 8, taken thus, 2, 4, 6, 8, or thus, 4, 2, 8, 6, are arithmetical proportionals; and the two couplets 2, 4, and 8, 16, taken thus, 2, 4, 8, 16, or thus, 4, 2, 16, 8, are geometrical proportionals.

To denote numbers as being geometrically proportional, the couplets are ſeparated by a double colon, and a colon is written between the terms of each couplet: we may alſo denote arithmetical proportionals by ſeparating the couplets with a double colon, and writing a colon, turned horizontally, between the terms of each couplet. So the above arithmeticals may be written thus, 2..4 :: 6..8, and 4.. 2::8..6; where the firſt antecedent is leſs or greater than its conſequent, by juſt ſo much as the ſecond antecedent is leſs or greater than its conſequent: and the geometricals thus, 2 : 4 :: 8 : 16, and 4 : 2 :: 16 : 8; where the firſt antecedent is contained in or contains its conſequent, juſt ſo often as the ſecond is contained in or contains its conſequent.

Note, It is common to read the geometricals 4:2::16:8, thus, 4 is to 2 as 16 to 8.

Proportion is diſtinguiſhed into continual and diſcontinual.

If, of ſeveral couplets of proportionals, written down in a ſeries, the difference or ratio of each conſequent, and the antecedent of the next following couplet, be the ſame as the common difference or ratio of the couplets, the proportion is ſaid to be continual, and the numbers themſelves a ſeries of continual proportionals, or an arithmetical or geometrical progreſſion. So 2, 4, 6, 8, form an arithmetical progreſſion; for 4—2=6—4=8—6=2; and 2, 4, 8, 16 a geometrical progreſſion; for $\frac{4}{2}=\frac{8}{4}=\frac{16}{8}=2$.

But if the difference or ratio of the conſequent of one couplet and the antecedent of the next couplet, be not the ſame as the common difference or ratio of the couplets, the proportion is ſaid to be diſcontinual. So 4, 2, 8, 6 are in diſcontinued arithmetical proportion; for 4—2=8—6=2, and 8—2=6: alſo 4, 2, 16, 8 are in diſcontinued geometrical proportion; for $\frac{4}{2}=\frac{16}{8}=2$, and $\frac{16}{2}=8$.

If the ſucceeding terms of a progreſſion exceed each other, it is called an aſcending progreſſion or ſeries; if the contrary, a deſcending ſeries.

So { 0, 1, 2, 4, &c. is an aſcending arithmetical ſeries.
{ 1, 2, 4, 8, 16, &c. is an aſcending geometrical ſeries.

and { 4, 3, 2, 1, 0, &c. is a deſcending arithmetical ſeries.
{ 16, 8, 4, 2, 1, &c. is a deſcending geometrical ſeries.

Note, The firſt and laſt terms of a progreſſion are called the extremes; and the other terms, the means.

Of ARITHMETICAL PROPORTION.

THEOREM I.

Of any four quantities, a, b, c, d, in arithmetical proportion*, the ſum of the two means is equal to the ſum of the two extremes.

For ſince, by ſuppoſition, $b - a$ is $= d - c$, therfore is $b + c = d + a$, by tranſpoſition.

THEOREM II.

In any continued arithmetical progreſſion (5, 7, 9, 11, 13, 15) the ſum of the two extremes and that of every other two terms equally diſtant from them, are equal.

For ſince, by the nature of progreſſionals, the ſecond term exceeds the firſt by juſt as much as it's correſponding term, the laſt but one, wants of the laſt, it is manifeſt, that when theſe correſponding terms are added together, the exceſs of the one will make good the defect of the other, and ſo their ſum be exactly the ſame with that of the two extremes: and in the ſame manner it will appear, that the ſum of any two other correſponding terms muſt be equal to that of the two extremes.

When the number of terms is odd, as in the progreſſion 4, 7, 10, 13, 16, then the ſum of the two extremes being double to the middle term, or mean, the ſum of any other two terms, equally remote from the extremes, muſt likewiſe be double to the mean.

THEOREM III.

In any continued arithmetical progreſſion, a, $a+d$, $a+2d$, $a+3d$, $a+4d$, &c. the laſt, or greateſt term, is equal to the firſt (or leaſt), more the common difference of the terms drawn into the number

* Although, in the compariſon of quantities according to their differences the term *proportion* is uſed; yet the word *progreſſion* is frequently ſubſtituted in its room, and is, indeed, more proper; the former from being, in the common acceptation of it, ſynonymous with *ratio*, which is only uſed in the other kind of compariſon.

of

of all the terms after the firſt, or into the whole number of the terms, leſs one.

For, ſince every term, after the firſt, exceeds that preceding it, by the common difference, it is plain that the laſt muſt exceed the firſt by as many times the common difference as there are terms after the firſt; and therefore muſt be equal to the firſt, and the common difference repeated that number of times.

THEOREM IV.

The ſum of any rank or ſeries of quantities, in continued arithmetical progreſſion (5, 7, 9, 11, 13, 15) is equal to the ſum of the two extremes multiplied into half the number of terms.

For, becauſe (by the ſecond Theorem) the ſum of the two extremes, and that of every two other terms equally remote from them, are equal, the whole ſeries, conſiſting of half as many ſuch equal ſums as there are terms, will therefore be equal to the ſum of the two extremes repeated half as many times as there are terms. The ſame thing alſo holds, when the number of terms is odd, as in the ſeries 8, 12, 16, 20, 24; for then, the mean, or middle term, being equal to half the ſum of any two terms equally diſtant from it, on contrary ſides, it is obvious that the value of the whole ſeries is the ſame, as if every term thereof was equal to the mean, and therefore is equal to the mean (or half the ſum of the two extremes) multiply'd by the whole number of terms; or, to the whole ſum of the extremes multiplied by half the number of terms.

Of ARITHMETICAL PROGRESSION.

A Rank of numbers more than *two* are ſaid to be in Arithmetical Progreſſion when they *increaſe* or *decreaſe* by the continual *addition* or *ſubtraction* of *one* and the *ſame* numbers.

In arithmetical progreſſion, *five* things are to be principally conſidered, *viz.* the *firſt* term; and the *laſt* term; the *number* of terms; the common *difference*; and the *ſum* of *all* the *terms* —Any three of theſe being given the reſt may be found by the following rules.

To find the ſum of the whole progreſſion.

RULE. Add the firſt and laſt terms together, and multiply their ſum by half the number of terms, the product will be the ſum of the whole progreſſion.

To find the leaſt term.

Divide twice the ſum of the progreſſion by the number of terms, and

and ſubtract the greateſt term from the quotient, the remainder will be the leaſt term.

Or, Multiply the number of terms *minus* 1 by the common difference, and this product ſubtracted from the greateſt term the remainder is the *leaſt* term.

To find the greateſt term.

Divide twice the ſum of the whole progreſſion by the number of terms; and from this quotient ſubtract the leaſt term, the remainder will be ths *greateſt* term.

Or, Multiply the number of terms minus 1 by the common difference, and to the product add the leaſt term, the ſum will be the greateſt term.

To find the number of terms.

Multiply the ſum of the whole progreſſion by 2, and divide this product by the ſum of the greateſt and leaſt terms, and the quotient will be the number of terms.

Or, ſubtract the leaſt term from the greateſt; divide the remainder by the common difference, and add 1 to the quotient, the ſum will be the number of terms.

To find the common difference.

Subtract the leaſt term from the greateſt, and divide by the number of terms leſs 1, the quotient will be the common difference.

EXAMPLES.

1. If a hundred ſtones were placed in a right line, a yard diſtant from one another, and the firſt a yard from the baſket, how far muſt a perſon go to bring the ſtones, one by one, into a baſket?

Anſwer, 10100 yards.

N. B. In this queſtion 2 is the leaſt term, 200 the greateſt, and 100 the number of terms.

2. Suppoſe a perſon bought 40 yards of cloth, and agreed to pay 2 d. for the firſt, 5 for the ſecond, 8 for the third, thus encreaſing 3 d. in the price of each yard of cloth; I demand what the laſt yard coſt him, what he gave for the whole, and how much it coſt per yard at an average?

Anſwer, the laſt yard coſt him 9 s. and 11 d.—and the whole L. 10 : 1 s. 8 d.—Average price 5 s. 0 $\frac{1}{2}$ d.

3. Re-

3. Required the ſum of the firſt 500 numbers in their natural order. Anſwer, 125250.

4. Twenty four perſons gave charity to a poor man, the firſt gave 3d. the ſecond 7 d. I demand what the laſt perſon gave, and how much the poor man received in all?

Anſwer, the laſt gave 7 s. 11 d.—They gave in all L. 4 : 18 s.

5. A man had 12 children, the youngeſt was 3 years old, and the eldeſt 47; pray what was the common difference of their ages?

Anſwer, 4.

6. If the extremes be 3 and 15, and the common difference 2: what is the number of terms and the ſum of the ſeries?

Anſwer, number of terms 7—ſum 63.

7. A debt can be diſcharged in a year, by paying 8 d. the firſt week, 18 d. the ſecond, and thus continuing always 10 d. more each week: What is the debt, and what will the laſt payment be?

Anſwer, the laſt payment will be 2 l. 3 s. 2 d.
and the debt 56 l. 19 s. 8 d.

8. What debt can be diſcharged, and in what time, ſuppoſing the firſt week the payment be 8 d. and the payments every week following to increaſe by 10 d. till the laſt payment be 2 l. 3 s. 2 d.

Anſwer, the debt is, 56 l. 19 s. 8 d. and will be diſcharged in a year.

9. If the extremes be 3 and 15, and the number of terms 7; what is the common difference and the ſum of the progreſſion?

Anſwer, the difference is 2, ſum 63.

10. What debt can be diſcharged in a year, by weekly payments in arithmetical progreſſion, whereof the firſt term or payment is 8 d. and the laſt 2 l. 3 s. 2 d. and what is the common difference of the ſeries of payments?

Anſwer, the difference is 10 d. and the debt is 56 l. 19 s. 8 d.

11. A perſon finiſhed a journey in nine days, the number of miles he travelled each day was in arithmetical progreſſion, the fifth day he travelled 27 miles: required the length of the journey? Anſwer, 243 miles.

12. A gentleman being indebted to ſeveral creditors 6480 l. ordered his ſteward to diſcharge them at ſeveral payments; the firſt payment to be 40 l. and the laſt 500 l. I deſire to know the number of creditors, and the difference of payment between each?

Anſwer, 24 creditors;—Difference 20 l.

Of GEOMETRICAL PROPORTION.

THEOREM I.

IF four quantities *a*, *b*, *c*, *d*, (2, 6, 5, 15) are in geometrical proportion, the product of the two means, *bc*, will be equal to that of the two extremes. *ad*.

For, since the ratio of *a* to *b* (or the part which *a* is of *b*) is expressed by $\frac{a}{b}$, and the ratio of *c* to *d*, in like manner by $\frac{c}{d}$; and since, by supposition, these two ratios are equal, let them both be multiplied by *bd*, and the products $\frac{a}{b} \times bd$ and $\frac{c}{d} \times bd$ will likewise be equal; that is, $\frac{abd}{b} = \frac{cbd}{d}$, or $ad = cb$.

THEOREM II.

If four quantities, *a*, *b*, *c*, *d*, are such, that the product of two of them, *ad*, is equal to the product of the other, *bc*, then are those quantities proportional.

For since, by supposition, the products *ad* and *bc* are equal, let both be divided by *bd*, and the quotients $\frac{ad}{bd}\ \frac{(a)}{(b)}$ and $\frac{bc}{bd}\ \frac{(c)}{(d)}$ will also be equal; and therefore $a : b :: c : d$.

THEOREM III.

If four quantities, *a*, *b*, *c*, *d* (2, 6, 5, 15) are proportional, the rectangle of the means divided by either extreme, will give the other extreme.

For, by the second Theorem, $ad = bc$ ($2 \times 15 = 6 \times 5$), whence, dividing both sides of the equation by *a* (2), we have $d = \frac{bc}{a}$ ($15 = \frac{6 \times 5}{2}$). Hence, if the two means and one extreme be given, the other extreme may be found.

THEOREM IV.

The products of the corresponding terms of two geometrical proportions, are also proportional.

That is, if $a : b :: c : d$, and $e : f :: g : h$, then will $ae : bf :: cg : dh$.

For

For $\frac{a}{b}=\frac{c}{d}$, and $\frac{e}{f}=\frac{g}{h}$, by ſuppoſition; whence $\frac{a}{b}\times\frac{e}{f}=\frac{c}{d}\times\frac{g}{h}$, by equal multiplication; and conſequently $\frac{ae}{bf}=\frac{cg}{dh}$; that is, $ae : bf :: cg : dh$. Hence it follows, that, if four quantities are proportional, their ſquares, cubes, &c. will likewiſe be proportional.

THEOREM V.

If four quantities, a, b, c, d, (2, 6, 5, 15) are proportional,

Then,

1. inverſely,	$b : a :: d : c$	(6 : 2 :: 15 : 5)
2. alternately,	$a : c :: b : d$	(2 : 5 :: 6 : 15)
3. compoundedly,	$a : a+b :: c : c+d$	(2 : 8 :: 5 : 20)
4. dividedly,	$a : b-a :: c : d-c$	(2 : 4 :: 5 : 10)
5. mixtly,	$b+a : b-a :: d+c : d-c$	(8 : 4 :: 20 : 10)
6. by multiplication,	$ra : rb :: c : d$	($2r$: $6r$ :: 5 : 15)
7. by diviſion,	$\frac{a}{r} : \frac{b}{r} :: c : d$	($\frac{2}{r}$: $\frac{6}{r}$ :: 5 : 15)

Becauſe the product of the means, in each caſe, is equal to that of the extremes, and therefore the quantities are proportional, by Theorem 2.

THEOREM VI.

If three numbers, a, b, c, (2, 4, 8) be in continued proportion, the ſquare of the firſt will be to *that* of the ſecond, as the firſt number to the third; that is, $a^2 : b^2 :: a : c$.

For, ſince $a : b :: b : c$, thence will $ac=bb$, by Theorem 1: and therefore $aac=abb$, by equal multiplication; conſequently $a^2 : b^2 :: a : c$, by Theorem 2.

In like manner it may be proved, that, of *four* quantities continually proportional, the cube of the firſt is to *that* of the ſecond, as the firſt quantity to the fourth.

THEOREM VII.

In any continued geometrical proportion (1, 3, 9, 27, 81, *&c.*) the product of the two extremes, and that of every other two terms, equally diſtant from them, are equal.

For the ratio of the firſt term to the ſecond, being the ſame as *that* of the laſt but one to the laſt, theſe four terms are in proportion; and therefore, by Theorem 1, the rectangle of the extremes is equal to *that* of their two adjacent terms: and, after the very

ſame manner, it will appear, that the rectangle of the third and laſt but two, is equal to *that* of their two adjacent terms, the ſecond and laſt but one; and ſo of the reſt. Whence the truth of the propoſition is manifeſt.

THEOREM VIII.

The ſum of any number of quantities, in continued geometrical proportion, is equal to the difference of the rectangle of the ſecond and laſt terms and the ſquare of the firſt, divided by the difference of the firſt and ſecond terms.

For, let the firſt term of the proportion be denoted by a, the common ratio by r, the number of terms by n, and the ſum of the whole progreſſion by x: then it is manifeſt that the ſecond term will be expreſſed by $a \times r$, or ar; the third by $ar \times r$, or ar^2; the fourth by $ar^2 \times r$, or ar^3, and the nth, or laſt term, by ar^{n-1}; and therefore, the proportion will ſtand thus; $a + ar + ar^2 + ar^3 \ldots + ar^{n-2} + ar^{n-1} = x$; which equation, multiplied by r, gives $ar + ar^2 + ar^3 + ar^4 \ldots + ar^{n-1} + ar^n = rx$; from which the firſt equation being ſubtracted there will remain $-a + ar^n = rx - x$; whence $x = \left(\frac{ar^n - a}{r - 1} = \frac{r \times ar^{n-1} - a}{r - 1}\right) = \frac{ar \times ar^{n-1} - aa}{ar - a}$; as was to be demonſtrated.

Of GEOMETRICAL PROGRESSION.

A GEOMETRICAL Progreſſion is a *rank* or ſeries of numbers which increaſes by one common multiplier, or decreaſes by one common diviſor.

PROBLEM I. Given *one* of the extremes, the ratio, and the number of the terms of a geometrical ſeries; to find the *other* extreme.

RULE. Multiply, or divide, the given extreme by ſuch power of the Ratio, whoſe exponent is the number of terms leſs 1, and the product or quotient will be the other extreme.

To

To find the ſum of the ſeries.

Divide the difference of the extremes by the common multiplier (the ratio) leſs by 1, and add the greater extreme to the quotient, the reſult will be the ſum of all the terms.

Or, Multiply the greateſt term by the ratio, from the product ſubtract the leaſt term: then divide the remainder by the *ratio*, leſs by 1, the quotient will be the ſum of all the terms.

Or, When all the terms are given, then, from the product of the *ſecond* and *laſt* terms ſubtract the *ſquare* of the *firſt* term; this remainder being divided by the *ſecond* term *leſs* the *firſt*, will give the *ſum* of the ſeries

Note, 1. As the *laſt term*, or any term near the laſt is very tedious to find out by continual multiplication; it will be neceſſary, in certain caſes, in order to aſcertain them, to have a *ſeries* of numbers in *Arithmetical Proportion*, called *Indices*, beginning with an *unit*, whoſe common difference is *one*: Alſo, whatever number of *Indices* you make choice of, let as many numbers (in ſuch geometrical proportion be given in the queſtion,) as are placed under them.

Thus	0,	1,	2,	3,	4,	5,	6,	Indices.
	1,	2,	4,	8,	16,	32,	64,	Numbers in geometrical proportion.

When the *Indices* begin with a cypher, (which they muſt always do if the firſt term in the progreſſion be different from the ratio) the ſum of the *Indices* made choice of muſt always be one leſs than the number of *terms* given in the queſtion; becauſe 1 in the Indices ſtands over the *ſecond term*, and 2 in the *Indices* ſtands over the *third term*.

3. By the help of theſe *Indices*, and a few of the *firſt terms*, in any ſeries of *Geometrical Progreſſion*, any term, whoſe diſtance from the firſt term is aſſigned, tho' it were ever ſo far, may ſpeedily be obtained, without producing all the terms.

Thus	0.	1.	2.	3.	4.	5.	6, &c.	arithmetical ſeries.
	1.	3.	9.	27.	81.	243.	729, &c.	geometrical ſeries.

Now $6+5=11$ =the index to the 12th term: and if 243 be multiplied into 729, the product will be 177147, which is the 12th term, whoſe *Indice* is 11.

EXAMPLES.

1. Given the leaſt term 1, the ratio 3, and the number of terms 7; what is the greateſt term, and the ſum of the ſeries?

$1 \times 3^6 = 727 =$ Greateſt term: And

$729-1 \div 2 + 726 = 1093 =$ ſum.

2. If the greateſt term be 708588, the ratio 3, and the number of terms 12, what is the leaſt term, and the ſum of the ſeries?

$$708588 \div 3^{11} = 4 = \text{the leaſt term : Then}$$
$$\frac{708588 - 4}{3-1} + 708588 = 1062880 = \text{ſum.}$$

3. A draper ſold 11 yards of cloth on the following terms; viz. 2 d. for the firſt yard, 4 d. for the ſecond, 8 d. for the third &c. I demand the price of the cloth? Anſwer, 17 l. 1 s. 2 d.

4. What debt will be diſcharged in a year, or 12 months, by paying 5 s. the firſt month, 10 s. the ſecond, 20 s. the third, &c. and what will be the laſt payment?

Anſwer, the debt is 1023 l. 15 s. 0 d.
and the laſt payment 512 l.

5. A threſher worked 8 days at a farmer's, and agreed to receive 12 barley corns for the firſt day's work, 96 for the ſecond, 768 for the third; and ſo on; I demand what his 8 days labour amounted to, rating the * barley at 4 s. *per* buſhel.

Anſwer, 11 l. 14 s.

* *Note*, 7680 Wheat or barley corns are ſuppoſed to make a pint, and 64 pints a buſhel.

PROBLEM II. Given the extremes, and the ratio, to find the number of terms.

RULE. Divide the greateſt term by the leaſt; find what power is equal to the quotient; than add 1 to the index of that power, and the ſum will be the number of terms.

EXAMPLES.

1. If the extremes be 1, and 729, and the ratio 3; what is the ſum of the ſeries, and the number of terms?

Anſwer, the ſum is 1093; and the number of terms 7.

2. If the extremes be 708588, and 4, and the ratio 3; what is the ſum of the ſeries, and the number of terms?

Anſwer, the ſum is 1062880, and the number of terms 12.

3. If the extremes be 2, and 2048, and the ratio 2; what is the ſum of the ſeries, and the number of terms?

Anſwer, the ſum is 4094, and the number of terms 11.

4. What debt will be diſcharged by monthly payments, in geomet-

geometrical progreſſion, of which the firſt is 5 s. and the laſt 512 l. the ratio being 2; and in what time will it be diſcharged?

Anſwer, the debt is 1023 l. 15 s. and will be diſcharged in 12 months.

PROBLEM III. Given the extremes, and the number of terms, to find the Ratio.

Divide the greater extreme by the leſs, and extract ſuch root of the quotient whoſe index is equal to the number of terms leſs 1.

EXAMPLES.

1. Given the extremes 1, and 729, and the number of terms 7; what is the ratio, and the ſum of the ſeries?

Anſwer, the ratio is 3, and the ſum 1093.

2. If the extremes be 708588, and 4, and the number of terms 12; what is the ratio, and the ſum of the ſeries?

Anſwer, the ratio is 3, and the ſum is 1062880.

3. If the extremes be 12, and 393216, and the number of terms 6; what is the ratio, and the ſum of the ſeries?

Anſwer, the ratio is 8, and the ſum is 449388.

4. What debt can be diſcharged in a year by monthly payments, in geometrical progreſſion, of which the firſt payment is 5 s. and the laſt 512 l. and what will be the ſum of the ſeries?

Anſwer, the ratio will be 2, and the debt 1023 l. 15 s.

Of PERMUTATION.

PERMUTATION is the changing of the order of things.

To find all the variations which any number of things are capable of going through, obſerve the following

RULE. Multiply all the given terms one into another continually; the laſt product will be the number changes required.

EXAMPLES.

1. Into how many different poſitions may 5 men be placed at a table to dine? Anſwer, 120.

2. How

2. How many changes may be rung upon 8 bells?
Anſwer, 40320.

3. How many changes may be rung upon 10 bells?
Anſwer, 3628800.

Of POSITION.

THIS Rule is alſo called *falſe* poſition; becauſe by making a ſuppoſition of falſe numbers, and continuing the operation according to the nature of the queſtion, as if they were the true ones, the *true* numbers are ſought.—There are *two* kinds of Poſition *ſingle* and *double*; in the firſt of which, *one* ſuppoſition is made uſe of, and in the laſt *two*.—

Thoſe queſtions, in which the reſults are proportional to their ſuppoſitions, belong to ſingle poſition: ſuch are thoſe which require the multiplication or diviſion of the number ſought by any number, or in which it is to be increaſed or diminiſhed by itſelf any number of times, or by any part or parts of it. And thoſe in which the reſults are not proportional to their poſitions, belong to the *double* rule: ſuch are thoſe, in which the number ſought is increaſed or diminiſhed by ſome given number, which is no known part of the number required.

To work queſtions in ſingle poſition.

Take any number and proceed as if it were the true number, by performing every operation the queſtion may require; and if the reſult be too *much* or too *little*, the *true* number may be found by the following ratio: As the *reſult* of the *poſition* is to the poſition; ſo is the *given* number to the number *required*.

Note, It is often beſt to make 1 a ſuppoſition.

EXAMPLES.

1. Divide 1000 crowns; give A. 129 more than B. and B. 178 fewer than C. Anſwer, A. 360. B. 231. C. 409.

2. A father divided his fortune among his ſons, giving A. 7, as often as B. 4; to C. he gave as often 2, as B. 5; and yet the dividend of C. came out 2166 l. $\frac{3}{8}$; what was the value of the whole legacy? Anſwer, 17060 l. 4 s. $0\frac{3}{4}$ d.

3. Five-

3. Five-ſixths of a certain number exceed three-fourths by 5; what is that number? Anſwer, 60.

4. A perſon dying, left legacies to A, B, C, D, and E. B's legacy was $\frac{3}{4}$ of A's, C's $\frac{3}{5}$ of B's, D's $\frac{4}{5}$ of C's and E's $\frac{1}{2}$ of D's, or 54 l. how much money was left among them? Anſwer, 822 l.

5. What number is that, which being increaſed by $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$ of itſelf, the ſum ſhall be 125? Anſwer, 60.

6. A gentleman diſtributed 78 pence among a number of poor people, conſiſting of men, women, and children; to each man he gave 6 d. to each woman 4 d. and to each child 2 d. moreover, there were twice as many women as men, and thrice as many children as women; how many were there of each?

Anſwer 3 men, 6 women; and 18 children.

7. One being aſked his age, replied, if $\frac{2}{3}$ of the years I have lived be multiplied by 7, and $\frac{5}{7}$ of this product be divided by 3, the quotient will be 20: what was his age? Anſwer, 30 years.

Of DOUBLE POSITION.

DOUBLE Poſition diſcovers the *true number* ſought, by making uſe of *two* ſuppoſed numbers; to diſcover which, obſerve the following

RULE. Proceed with each of your ſuppoſed numbers, in every reſpect, according to the conditions of the queſtion:

	Poſ.	*Err.*
2. Place the *reſults* or *errours* againſt	120	51
their *poſitions*, or ſuppoſed numbers; thus,	130	21

3. Multiply them croſs-wiſe: that is, the firſt poſition by the *laſt* errour, and the *laſt* poſition by the firſt errour.

4. If the errours be alike, that is, both too *little*, or both too *much*, take their *difference* for a *diviſor*, and the difference of their products for a *dividend*; the quotient ariſing from the diviſion will be the true number ſought: But

5. If the *errours* be *unlike*, that is one too *little* and the other too *much*, take their *ſum* for a *diviſor*, and the ſum of the products for a *dividend*; the quotient ariſing from the diviſion will be the anſwer.

Ex-

EXAMPLES.

1. What number is that, which being increaſed by 30 is equal to 6 times the ſame leſſened by 45? Anſwer, 15.

2. Three perſons diſcourſed together concerning their ages; ſays A, I am 20 years of age; ſays B, I am as old as A, and half C: and ſays C, I am as old as you both: I demand each of their ages? Anſwer, A was 20, B 60, C 80 years of age.

3. Suppoſe a man was to finiſh a piece of work in 60 days, and every day he works he is to have 5 s. 6 d. and every day he plays he is to forfeit 4 s. 2 d. and when the work came to be finiſhed he received according to agreement; the ſum of 7 l. 16 s. how many days did he work, and how many days did he play?

Anſwer, He worked 42, and played 18.

4. *A* and *B*, ſettling accompts, found, that if 6 l. were added to $\frac{2}{3}$ of *A*'s bill, and the ſame ſum taken from $\frac{2}{3}$ of *B*'s, the ſum would be $\frac{7}{8}$ of the remainder; and that the ſum and remainder added together made 72 l. I demand each perſon's bill?

Anſwer, *A*'s 41 l. 8 s.—*B*'s 66 l. 12 s.

5. A certain man having driven his ſwine to market, *viz.* hogs, ſows, and pigs, received for them all 50 l. being paid for every hog 18 s. for every ſow 16 s. and for every pig 2 s.—there were as many hogs as ſows, and for every ſow there were three pigs: I demand how many there were of each? Anſwer, 25 *hogs*, 25 *ſows*, and 75 *pigs*.

6. *A*, *B*, and *C* found a cheſt containing a certain number of pounds, and when they divided the booty *A* and *B*'s ſhare amounted to 47 l. *B* and *C*'s to 88, and *A* and *C*'s to 71 l. what ſum was found, and each man's ſhare? Anſwer, *A*'s ſhare 15 l. *B*'s 32, and *C*'s 56 l.

7. Bought 100 quarters of malt, meal, and oatmeal, together for 142 l.—For every 5 buſhels of malt I had 3 of meal, and for every 8 of meal I had 7 of oatmeal: Pray what did theſe coſt me ſeverally a buſhel, the malt being half as dear again as the meal, and the meal double the price of the oatmeal?

Anſwer, *Malt* 4 s. $9\frac{720}{1512}$ d. *meal* 3 s. $2\frac{480}{1512}$ d. *oatmeal* 1 s. $7\frac{240}{1512}$ d.

A, *B* and *C*, built a houſe, which coſt 100 l. of which *A* paid a certain ſum; *B* 10 l. more than *A*; and *C* paid as much as *A* and *B*: I demand each man's ſhare in that charge?

Anſwer, *A* paid 20 l. *B* 30 l. and *C* 50 l.

Of

of SIMPLE INTEREST.

A TABLE of RATIOS, from *one* pound, &c. to *ten* pounds.

Rate *per C.*	Ratios	Rate *per C.*	Ratios	Rate *per C.*	Ratios
1	,01	4	,04	7	,07
1¼	,0125	4¼	,0425	7¼	,0725
1½	,015	4½	,045	7½	,075
1¾	,0175	4¾	,0475	7¾	,0775
2	,02	5	,05	8	,08
2¼	,0225	5¼	,0525	8¼	,0825
2½	,025	5½	,055	8½	,085
2¾	,0275	5¾	,0575	8¾	,0875
3	,03	6	,06	9	,09
3¼	,0325	6¼	,0625	9¼	,0925
3½	,035	6½	,065	9½	,095
3¾	,0375	6¾	,0675	9¾	,0975
				10	1

CASE I. When the principal, time, and ratio are given, to find the intereſt, and amount.

RULE. Multiply the principal, time, and ratio into one another, and the product will be the intereſt, commiſſion, brokage, &c. to which add the principal, the ſum will be the amount.

EXAMPLES.

1. Required the amount of 792 l. at 5 l. *per cent. per annum* for 3 years? Anſwer, L. 847 : 16 : 0.

2. Required the amount of 4000 l. in 5 years, at 3½ l. *per cent. per annum?* Anſwer, 4700 l.

3. Required the intereſt and amount of 342 l. at 5 l. *per cent. per annum* for 8 years? Anſwer, 136 l. 16 s. intereſt, and the amount is 478 l. 16 s.

4. If my correſpondent is to have 1¼ l. *per cent.* what will his commiſſion amount to on 555 l. 10 s.? Anſwer, L. 6 : 18 : 10½.

5. What will be the intereſt and amount of 525 l. in 4 years, at 3½ l. *per cent. per annum?* Anſwer, Intereſt 73 l. 10 s. Amount 598 l. 10 s.

A TABLE *for the ready finding the Decimal Parts of a* Year, *equal to any Number of* Days, *or* Quarters *of a* Year.

Days.	Decimal Pts.	Days.	Decimal Pts.	Days.	Decimal Pts.
1	,00274	10	,027397	100	,273973
2	,005479	20	,054794	200	,547945
3	,008219	30	,082192	300	,821918
4	,010959	40	,109589	365	1,000000
5	,013699	50	,136986		
6	,016438	60	,164383		
7	,019178	70	,191781	¼ *of a Year*	,25
8	,021918	80	,219178	½ *of a Year*	,5
9	,024657	90	,246575	¾ *of a Year*	,75

6. What will 5250 l. amount to in 5¼ years, at 4½ l. *per cent. per annum?* Anſwer, L. 6490 : 6 : 3.

7. What will be the intereſt and amount of 175 l. in 2 years and 145 days, at 5 l. *per cent. per annum?*
Anſwer, intereſt L. 20 : 19 : 6. + amount L. 195 : 19 : 6 +

8. What will 1056 l. amount to in 3¾ years, at 4¼ l. *per cent. per annum?* Anſwer, L. 1224 : 6 : 0.

CASE II. *When the amount, time and ratio are given, to find the principal.*

RULE. Multiply the ratio by the time, add unity to the product for a diviſor, by which ſum divide the amount, and the quotient will be the principal.

EXAMPLES.

1. What principal will amount to 847 l. 16 s. in 3 years, at 5 l. *per cent. per annum?* Anſwer, 792 l.

2. What principal will amount to 4700 l. in 5 years, at 3½ l. *per cent. per annum?* Anſwer 4000 l.

3. What principal will amount to 478 l 16 s. in 8 years, at 5 l. *per cent. per annum?* Anſwer, 342 l.

4. What principal will amount to 598 l. 10 s. in 4 years, at 3½ l. *per cent. per annum?* Anſwer, 525 l.

5. What principal will amount to 6490 l. 6 s. 3 d. in 5¼ years, at 4½ l. *per cent. per annum?* Anſwer, 5250 l.

6. What

6. What principal will amount to 195l. 19s. 6,99 d.+ in 2 years and 145 days, at 5 l. *per cent. per annum?* Anſwer, 175 l.

7. What principal will amount to 1224 l. 6s. in $3\frac{3}{4}$ years, at $4\frac{1}{4}$ l. *per cent. per annum?* Anſwer, 1056 l.

CASE III. When the amount, principal, and time are given, to find the *ratio* of the *rate per cent.*

RULE. Subtract the principal from the amount, and divide the remainder by the product of the time and principal, the quotient will be the *ratio* of the *rate per cent.*

EXAMPLES.

1. At what rate *per cent.* will 792 l. amount to 847 l. 16 s. in 3 years? Anſwer, 5 l. *per cent.*

2. At what rate *per cent.* will 4000 l. amount to 4700 l. in 5 years? Anſwer, $3\frac{1}{2}$ l. *per cent.*

3. At what rate *per cent.* will 342 l. amount to 478 l. 16 s. in 8 years? Anſwer, 5 l. *per cent.*

4. At what rate *per cent.* will 525 l. amount to 598 l. 10 s. in 4 years? Anſwer, $3\frac{1}{2}$ l. *per cent.*

5. At what rate *per cent.* will 5250 l. amount to 6490 l. 6s. 3 d. in $5\frac{1}{4}$ years? Anſwer, $4\frac{1}{2}$ l. *per cent.*

6. At what rate *per cent.* will 175 l. amount to 195 l. 19 s. 6,99 d.+ in 2 years and 145 days? Anſwer, 5 l. *per cent.*

7. At what rate *per cent.* will 1056 l. amount to 1224 l. 6 s. in $3\frac{3}{4}$ years? Anſwer, $4\frac{1}{4}$ l. *per cent.*

CASE IV. When the amount, principal, and rate *per cent.* are given, to find the time.

RULE. Subtract the principal from the amount, and divide the remainder by the product of the ratio of the rate *per cent.* and principal, the quotient will be the time.

EXAMPLES.

1. In what time will 792 l. amount to 847 l. 16 s. at 5 l. *per cent?* Anſwer, 3 years.

2. In what time will 4000 l. amount to 4700 l. at $3\frac{1}{2}$ l. *per cent?* Anſwer, 5 years

3. In what time will 342 l. amount to 478 l. 16 s. at 5 l. *per cent?* Anſwer, 8 years.

4. In what time will 525 l. amount to 598 l. 10 s. at $3\frac{1}{2}$ l. *per cent?* Anſwer, 4 years.

5. In what time will 5250 l. amount to 6490 l. 6 s. 3 d. at $4\frac{1}{2}$ l. *per cent?* Anſwer, $5\frac{1}{4}$ years.

6 In what time will 175 l. amount to 195 l. 19 s. 6,99 d.+ at 5 l. *per cent?* Anſwer, 2 years 145 days.

7. In what time will 1056 l. amount to 1224 l. 6 s. at $4\frac{1}{4}$ l. *per cent?* Anſwer, $3\frac{3}{4}$ years.

Of SIMPLE INTEREST *for* DAYS.

To find the ſimple intereſt of any ſum for any number of days: RULE. Multiply the intereſt of *one pound* for *one day*, at the *given* rate, by the *principal*, and by the number of days; the laſt product will be the intereſt required.

A TABLE ſhewing the intereſt of 1 l. for *one* day, at any rate from 1 l. to 10 l. *per cent.*

L.			L		
1	*per cent.*	is=,00002739726	6	*per cent.*	is=,00016438356
2		is=,00005479452	7		is=,00019178082
3		is=,00008219178	8		is=,00021917808
4		is=,00010958904	9		is=,00024657534
5		is=,00013698863	10		is=, 00002739726

EXAMPLES.

1. What is the intereſt of 150 l. for 136 days, at 5 l. *per cent?* Anſwer, L. 2 15s. $10\frac{1}{2}$d. 739,+

2. What is the intereſt of 215 l. for 76 days, at 4 l. *per cent?* Anſwer, 1 l. 15 s. $9\frac{3}{4}$ d.+

3 What is the intereſt of 750 l. from the 18th of May 1776, to the 1ſt of December following, incluſive, at $3\frac{1}{2}$ l. *per cent?* Anſwer, 12 l. 12 s. $2\frac{3}{4}$d. 8+

4. What is the intereſt of 40 l. for 50 days, at 6 l. *per cent?* Anſwer, 6s. $6\frac{3}{4}$d. ,6+

Note, See another manner of working ſimple intereſt for days, in *ſimple intereſt*, page 123.

of REBATE *or* DISCOUNT.

CASE I.

QUESTIONS in Rebate or Diſcount are anſwered by the rule given at Caſe ſecond of Intereſt, page 178; for by calling the ſum to be diſcounted a principal, the preſent worth may be diſcovered by multiplying the ratio by the time, add unity to the product, and divide the reſult by the ſum to be diſcounted; the quotient will be the preſent worth.

EXAMPLES.

1. What is the preſent worth of 500 l. due 2 years hence, at 5 l. *per cent. per annum?* Anſwer, l. 454 : 10 : $10\frac{3}{4}$,636+

2. What is the preſent worth of 161 l. 10 s. due 19 months hence, at 5 l. *per eent. per annum?* Anſwer, l. 149 : 13 : $0\frac{3}{4}$+

3. What is the preſent worth of 2550 l. for 15 months, at 4 l. *per cent. per annum?* Anſwer, l. 2428 : 11 : $5\frac{1}{7}$

CASE II. When the preſent worth of the ſum to be diſcounted, the time, and the ratio, or rate *per cent.* are given, to find the ſum to be diſcounted at firſt.

RULE. Multiply the preſent worth, time, and ratio together, to this product add the preſent worth, and the reſult will be the ſum to be diſcounted.

EXAMPLES.

1. Suppoſe I receive 454 l. 10 s. $10\frac{3}{4}$,636+ now, for a ſum of money due 2 years hence; I demand the ſum that was due at firſt, allowing 5 l. *per cent.* for preſent payment? Anſwer, 500 l.

2. If I receive 149 l. 13 s. 0 d. $\frac{3}{4}$+ for a ſum of money due 19 months hence, allowing 5 l. *per cent.* for preſent payment, what ſum was due at firſt? Anſwer, 161 l. 10 s.

3. Suppoſe one receives 2428 l. 11 s. $5\frac{1}{7}$ d. for a ſum due 15 months hence; allowing 4 l. *per cent.* for preſent payment, what ſum was due at firſt? Anſwer, 2550 l.

CASE III. When the ſum to be diſcounted, the principal, and time are given, to find the ratio.

RULE. From the ſum to be diſcounted ſubtract the preſent worth

worth, and divide the remainder by the time multiplied by the principal; the quotient will be the ratio.

EXAMPLES.

1. At what rate *per cent.* will 500l. due 2 years hence, produce 454 l. 10 s. 10$\frac{3}{4}$d. ,636+ for preſent payment?
Anſwer, 5 l. *per cent.*

2. At what rate *per cent.* will 161 l. 10 s. due 19 months hence, produce 149l. 13 s. 0$\frac{3}{4}$+ for preſent payment?
Anſwer, 5l. *per cent.*

3. At what rate *per cent.* will 2550l. due 15 months hence, produce 2428 l. 11 s. 5$\frac{1}{7}$d. for preſent payment? Anſwer, 4 l *per cent.*

CASE IV. When the ſum to be diſcounted, the preſent worth of that ſum, and the ratio are given, to find the time.

RULE. Subtract the preſent worth from the ſum to be diſcounted, and divide the remainder by the product of the ratio and preſent worth: the quotient will be the time.

EXAMPLES.

1. In what time will 792l. amount to 831 l. 12 s. at 5l. *per cent?* Anſwer, 1 year.

2. In what time will 454 l. 10 s. 10$\frac{3}{4}$d. ,636+ amount to 500l. at 5 l. *per cent?* Anſwer, 2 years.

3. In what time will 149l. 13 s. 0$\frac{3}{4}$d.+ amount to 161l. 10 s. at 5l. *per cent?* Anſwer, 19 months.

4. In what time will 2428 l. 11 s. 5$\frac{1}{7}$d. amount to 2550 l. at 4 l. *per cent?* Anſwer, 15 months.

Of ANNUITIES *or* PENSIONS *in* ARREARS.

WHEN annuities or penſions are payable every year, half year, or quarter, and if they are unpaid for any number of payments, they are ſaid to be in *arrears*; and for each payment at the time it is due, *ſimple intereſt* is allowed, at a certain rate *per cent.*

CASE I. When the ANNUITY, TIME, and RATE of INTEREST are given to find the AMOUNT.

RULE.

RULE. Multiply the time by itſelf, and that product by the annuity; from this ſubtract the product of the annuity multiplied by the time, and divide the remainder by 2: multiply this quotient by the ratio of the rate *per cent.* and to this product add the time multiplied by the annuity, and the ſum will be the amount.

EXAMPLES.

1. If an annuity of 50l. be forborne 5 years, what will it amount to in that time, allowing 5 l. *per cent?* Anſwer, 275 l.

2. If a houſe be let upon leaſe for 7 years at 45 l. *per annum*, I demand the amount for that time at 4 l. *per cent.* for the forbearance of payment? Anſwer, 352 l. 16 s.

3. If a penſion of 35 l. *per annum* be omitted for 6 years, what will it amount to in that time, at $4\frac{1}{2}$ l *per cent?* Anſwer, 233 l 12 s. 6 d.

Note. When the *annuities* or *rents* are to be paid by *half-yearly* or *quarterly* payments, which is generally the caſe, then, for *half-yearly* payments take $\frac{1}{2}$ of the *ratio*, $\frac{1}{2}$ of the annuity, and reduce the years into half years: But, if the payments are to be quarterly, take $\frac{1}{4}$ of the ratio, $\frac{1}{4}$ of the yearly rent, and reduce the years into quarters, and then proceed as before directed.

4. If 50 l. annuity payable every half year, were unpaid 5 years; what would it amount to in that time, at 5 l. *per cent?*
Anſwer, 278 l. 2 s. 6 d.

5. If 50 l. annuity payable quarterly, were unpaid 5 years; what would it amount to in that time, at 5 l. *per cent?*
Anſwer, 279 l. 17 s. 6 d.

Note. You will find by comparing theſe two laſt examples with the firſt, that half yearly payments are more advantageous than yearly, and quarterly, than half-yearly payments.

CASE II. When the AMOUNT, RATE of intereſt, and TIME are given, to find the ANNUITY.

RULE. Multiply the ſquare of the time by the ratio, to which product add twice the time; and from that ſum ſubtract the time multiplied by the ratio, for a *diviſor*: Multiply the amount of the annuity by 2 for a *dividend*: the *quotient* ariſing from this diviſion will be the *annuity* required.

EXAMPLES.

1. If the amount of an annuity for 5 years, at 5 l. *per cent.* be 275 l. what is the annuity? Anſwer, 50 l.

2. Suppoſe a houſe be let upon leaſe for 7 years, and the amount for that time be 352 l. 16 s. at 4 l. *per cent.* what is the yearly rent? Anſwer, 45 l.

3. If

3. If the amount of a penſion for 6 years at $4\frac{1}{2}$ l. *per cent.* be 233 l. 12 s. 6 d. what is the penſion? Anſwer, 35 l.

Note. If the payments be made *half-yearly* 4 times the amount muſt be divided; and if *quarterly*, then 8 times the amount.

4. If the amount of an annuity, payable half-yearly, for 5 years, at 5 l. *per cent.* be 278 l. 2 s. 6 d. what is the annuity?
Anſwer, 50 l.

5. If the amount of an annuity, payable quarterly, for 5 years at 5 l. *per cent.* be 279 l. 17 s. 6 d. what is the annuity?
Anſwer, 50 l.

CASE III. When the ANNUITY, AMOUNT, and TIME are given, to find the RATE of INTEREST.

RULE. From twice the amount, ſubtract twice the annuity multiplied by the time, and divide the remainder by the ſquare of the time multiplied by the annuity, made leſs by the time multiplied by the annuity, and the quotient will be the *ratio* of the rate *per cent.*

EXAMPLES.

1. If an annuity of 50 l. *per annum* amount to 275 l. in 5 years, what is the rate *per cent?* Anſwer, 5 l.

2. If a houſe let on leaſe for 7 years, at 45 l. *per annum*, amount to 352 l. 16 s. what is the rate *per cent?* Anſwer, 4 l.

3. If a penſion of 35 l. *per annum* amount, in 6 years, to 233 l. 12 s. 6 d. what is the rate *per cent?* Anſwer, $4\frac{1}{2}$ l.

Note. If the payments be *half-yearly*, the amount and annuity muſt each be multiplied by 4; and if *quarterly* by 8; in every other reſpect proceed as before.

4. If an annuity of 50 l. *per annum* payable half-yearly, being forborne 5 years, amount to 278 l. 2 s. 6 d. I demand the rate *per cent?* Anſwer, 5 l.

5. If an annuity of 50 l. *per annum* payable quarterly, being forborne 5 years, amount to 279 l. 17 s. 6 d, I demand the rate *per cent?* Anſwer, 5 l.

CASE IV. When the ANNUITY, AMOUNT, and RATE are given, to find the TIME.

RULE. Divide 2 by the ratio, and ſubtract 1 from the quotient: then ſquare the remainder, and divide the ſquare by 4; to this quotient add twice the amount divided by the annuity multiplied

plied by the ratio, and extract the ſquare root of the ſum—Laſtly, from this root ſubtract half the number found by dividing 2 by the ratio and ſubtracting one from the quotient, and this reſult will be the time.

EXAMPLES.

1. In what time will an annuity of 50 l. *per annum* amount to 275 l. at 5 l. *per cent?* Anſwer, 5 years.

2. If a houſe be let upon leaſe, for a certain time, for 45 l. *per annum*, and the amount be 352 l. 16 s. at 4 l *per cent.* I demand the time that it was let for? Anſwer, 7 years.

3. If a penſion of 35 l. *per annum* being forborne a certain time amount to 233 l. 12 s. 6 d. at $4\frac{1}{2}$ l. *per cent.* I demand the time of forbearance? Anſwer, 6 years.

Note, If the payments were half-yearly, the time will be equal to the number of half-years; but if they were made *quarterly*, the time will be equal to the number of quarterly payments.

4. If an annuity of 50 l. *per annum*, payable half-yearly, being forborne, amount to 278 l. 2 s. 6 d. at 5 l. *per cent.* I demand the time and payments forborne?

Anſwer, 10 payments = 5 years.

5. If an annuity of 50 l. *per annum*, payable quarterly, being forborne a certain time, amount to 279 l. 17 s. 6 d. at 5 l. *per cent.* I demand the time, and payments forborne?

Anſwer, 20 payments = 5 years.

OF THE PRESENT WORTH OF ANNUITIES OR PENSIONS.

CASE I. When the *annuity*, *rate*, and *time* are given, to find the PRESENT WORTH.

RULE. Square the time, and multiply the product by the ratio; to this add *twice* the time; then from the ſum ſubtract the time multiplied by the ratio, and let the remainder ſtand for a Dividend: Next, multiply twice the ratio by the time, and add 2 to the product for a *diviſor*: Laſtly, Divide the one by the other, and multiply the quotient by the *annuity*, penſion, &c, and the product will be the preſent worth.

EXAMPLES.

1. What is the preſent worth of 200 l. *per annum*, to continue 6 years at 5 l. *per cent?* Anſwer, 1038 l. 9 s. $2\frac{1}{2}$ d. $\frac{9}{10}$

2. What is 30 l. yearly rent to continue 8 years, worth in ready money, at 5 l. *per cent* Anſwer, 201 l. 8 s. $6\frac{3}{4}$ d.,4+

3. What is a ſalary of 20 l. *per annum* worth to continue 12 years, at 4 l. *per cent*? Anſwer, 199 l. 3s. $9\frac{1}{4}$d.,6+

Note, When the annuity, rent, &c. is paid half yearly, take $\frac{1}{2}$ of the ratio, $\frac{1}{2}$ of the annuity, and twice the number of years; but if quarterly, take $\frac{1}{4}$ of the ratio, $\frac{1}{4}$ of the yearly rent, and four times the number of years, and proceed as before.

EXAMPLES.

4. What is the preſent worth of 100 l. *per annum*, payable half yearly, at 5 l. *per cent*. and to continue 6 years?
Anſwer, L. 525.

5. What is the preſent worth of 50 l. *per annum*, payable quarterly, at 5 l. *per cent*. and to continue 6 years?
Anſwer, L. 263 l. : 18 s. : $9\frac{3}{4}$.,6

CASE II. When the Preſent worth, the Time, and Ratio are given, to find the ANNUITY, RENT, &c.

RULE. Multiply the ratio by the time, and add 1 to the product for a Dividend; then multiply the ſquare of the time by the ratio, ſubtract the product of the time and ratio, and to the remainder add twice the time for a Diviſor: Laſtly, multiply the quotient of theſe two numbers by twice the preſent worth, and the product will be the annuity, &c.

EXAMPLES.

1. There is an annuity of 6 years to come, I demand the yearly value, when the preſent worth at 5 l. *per cent*. is 1038 l. 9s. $2\frac{1}{2}$d?
Anſwer, 200 l. *per annum*.

2. What is the yearly rent of a houſe 8 years to come, when the preſent worth at 5l. *per cent*. is 201l. 8s. $6\frac{3}{4}$d? Anſwer, 30l.

3. If a perſon have a ſalary to continue 12 years, I demand the yearly value, when the preſent worth at 4 l. *per cent* is 199 l. 3 s. $9\frac{1}{4}$ d? Anſwer, 20 l. *per annum*.

Note, If the payments be half yearly, you muſt take $\frac{1}{2}$ of the ratio, and multiply by 4 times the preſent worth: and if quarterly, $\frac{1}{4}$ of the ratio, and multiply by 8 times the preſent worth.

EXAMPLES.

4. The preſent worth of an annuity payable half-yearly for 6 years is 525 l. at 5 l. *per cent*. I demand the annuity? Anſwer, L. 100.

5. The

5. The preſent worth of an annuity, payable quarterly for 6 years to come, at 5 l. *per cent.* is 263 l. : 18 s. : 9$\frac{3}{4}$,6 I demand the annuity? Anſwer, 50 l.

CASE III. When the *annuity, preſent worth,* and *time* are given to find the RATIO.

RULE. Multiply twice the annuity by the time, from which product ſubtract twice the preſent worth, and reſerve the remainder for a Dividend: Next, multiply twice the preſent worth by the time, and reſerve this product: again, multiply the annuity by the ſquare of the time, from which ſubtract the annuity multiplied by the time, and let this remainder taken from the product laſt reſerved be your Diviſor: Laſtly, the quotient ariſing from the diviſion of theſe two numbers will be the Ratio required.

EXAMPLES.

1. I demand at what rate *per cent.* the yearly rent of L. 200 to continue 6 years will produce the preſent worth of 1038 l. 9 s. 2$\frac{1}{2}$d ,9? Anſwer, 5 l. *per cent.*

2. At what rate *per cent.* will the yearly rent of 30 l. to continue 8 years, produce the preſent worth of 201 l. 8 s. 6$\frac{3}{4}$d.,4?
Anſwer, 5 l. *per cent*

3. At what rate *per cent.* will a ſalary of 20 l. *per annum* to continue 12 years, produce 199 l. 3 s. 9$\frac{1}{4}$d ,6 preſent worth?
Anſwer, 4 l. *per cent.*

Note, When the Annuities, or Rents, are to be paid half-yearly, take $\frac{1}{2}$ the annuity or yearly rent, and twice the number of years, that is, reduce the years into half-years, and then the quotient will be the ratio, of half the rate *per cent.* But for quarterly payments, take $\frac{1}{4}$ of the annuity or yearly rent, and four times the number of years; that is, reduce the years into quarters; and then the quotient will be the ratio of a fourth part of the rate *per cent.*

4 If an annuity of L. 100 *per cent.* payable half-yearly, having 6 years to come, be ſold for 525l. I demand the rate *per cent?*
Anſwer, 5 l. *per cent.*

5. If an annuity of L. 50 *per annum,* payable quarterly, having 6 years to come be ſold for 263 l. 18 s. 9d $\frac{3}{4}$,6—I demand the rate *per cent?* Anſwer, 5 l.

CASE IV. When the ANNUITY, PRESENT WORTH, and RATIO are given, to find the TIME.

Note, As this caſe would be more difficult to be underſtood in words than in Algebraical characters; I ſhall make uſe of the *laſt* method; therefore,

Let a repreſent the annuity, p its preſent worth, r the ratio of the rate *per cent*; and t the time:

First $\frac{2}{r} - \frac{2p}{a} - 1 = x$. 2dly, $\sqrt{\frac{2p}{ra} + \frac{xx}{4}} - \frac{x}{2} = t$.

EXAMPLES.

1. If 200 l. yearly rent produce 1038l. 9s. $2\frac{1}{2}$d. preſent worth, at 5 l. *per cent*. what is the time of its continuance?

Anſwer, 6 years.

2. If a ſalary of 30l. *per annum*, be worth 201l. 8s. $6\frac{3}{4}$d. preſent money at 5 l. *per cent*. I demand the time of its continuance?

Anſwer, 8 years.

3. If an annuity of 20l. *per annum* produce 199l. 3s. $9\frac{1}{4}$d. preſent worth at 4 l. *per cent*. what is the time of its continuance?

Anſwer, 12 years.

Note, If the payments be half yearly, a will be $=$ half the given annuity, &c. $r =$ half the ratio of the given rate; and t will be $=$ the number of payments or half years: But If the payments be quarterly, then a will be $=$ a fourth part of the given annuity, &c. $r =$ a fourth part of the ratio of the given rate; and t will be $=$ the number of quarterly payments.

4. If an annuity of 100 l. *per annum*, payable half yearly, be ſold for 525 l. at 5l. *per cent*. I demand the number of payments and the time of its continuauce?

Anſwer, 12 payments $=$ 6 years.

5. If an annuity of 50l. *per annum*, payable quarterly, be worth 263 l. 18 s. 9d. $\frac{3}{4}$,6 at 5 l. *per cent*. I demand the number of payments, and the time of its continuance?

Anſwer, 24 payments $=$ 6 years.

Of

Of ANNUITIES, &c. TAKEN IN REVERSION.

CASE I. To find the preſent worth of an ANNUITY, &c. in REVERSION.

First, $\frac{rtt-rt+2t}{2rt+2}$: $\times a = {}^*p$ the preſent worth of the yearly ſum, at the given rate, and for the time of its continuance.

2dly, Make ${}^*p = a$; then $\frac{a}{tr+1} p =$ = the preſent worth of the *annuity*, &c. in *Reverſion*.

EXAMPLES.

1. What is the preſent worth of an annuity of 50 l. *per annum*, to continue 8 years, but is not to commence till the end of 2 years, allowing 5 l. *per cent.* to the purchaſer?

Anſwer, 305l. 3s. $10\frac{1}{2}$ l.

2. What is the preſent worth of an annuity of 15 l. *per annum*, to continue 10 years; but is not to commence 'till the expiration of 3 years, allowing 4 l. *per cent.* to the purchaſer?

Anſwer, 112l. 17s. $10\frac{3}{4}$d.

3. What is the preſent worth of an annuity of 17 l. *per annum*, to continue 7 years, but will not commence till the end of 3 years, allowing the purchaſer 5 l. *per cent.* for his money?

Anſwer, 88 l. 2 s. $8\frac{3}{4}$d.

CASE II. To find the yearly income of an *annuity* &c. in Reverſion.

$ptr = {}^*a =$ the amount of the preſent worth of the yearly ſum, at the given rate, and for the time before the Reverſion.

2dly, make ${}^*a = p$: then $\frac{rt+1}{rtt-rt+2t} = a$ the yearly rent, which being ſold, will produce ${}^*a$ for its preſent worth, at the ſame rate, and for the time of its continuance.

EXAMPLES.

1. An annuity to continue 8 years, but commences not till the end of 2 years, is ſold for 305l. 3s. $10\frac{1}{2}$d. preſent money: what is the yearly ſum, allowing the purchaſer 5l. *per cent.* for the money?

Anſwer, 50l.

2. An

2. An annuity to continue 10 years, but which is not to commence till the expiration of 3 years, is ſold for 112l. 17s. 10$\frac{3}{4}$d. what is the yearly ſum, allowing the purchaſer 4 l. *per cent?*

Anſwer, 15 l.

3. If an annuity to continue 7 years, but which is not to commence 'till the end of 2 years, be ſold for 88l. 2 s. 8$\frac{3}{4}$d. what is the yearly ſum, allowing the purchaſer 5 l. *per cent?*

Anſwer, 17 l.

Of COMPOUND INTEREST.

CASE I. *When the Principal, the Rate of Intereſt, and Time are given, to find the Amount, or Intereſt.*

RULE. Multiply the amount of 1 l. at the given rate *per cent.* as often into itſelf, as there are number of years leſs by one; this laſt product being multiplied by the principal, will give the Amount; from which, if you ſubtract the principal, the remainder will be the Intereſt.

EXAMPLES.

1. What is the intereſt and amount of 500l. for 4 years, at 5 l. *per cent. per annum?* Anſwer, amount l.607 : 15 : 0$\frac{3}{4}$.
intereſt, l.107 : 15 : 0$\frac{3}{4}$.

Thus; 1,05X1,05X1,05X1,05X500=607,753125=l.607 : 15 : 0$\frac{3}{4}$. See TABLE I. at the end of Compound Intereſt, ſhewing the amount of 1 l. at the rates of 3, 3$\frac{1}{2}$, 4, 4$\frac{1}{2}$ and 5 l. *per cent. per annum,* from 1 year to 50 years: therefore, if you multiply the amount of 1 l. for the number of years at the given rate, by the principal, the product will be the amount: for 1,21550625X500=607,753125 as above.

2. What ſum will 800l. amount to in 3 years, at 4 l. *per cent. per annum?* Anſwer, l.899 : 17 : 9$\frac{3}{4}$.552.

3. What ſum will 1000l. amount to in 5 years, at 4$\frac{1}{2}$ *per cent. per annum?* Anſwer, l. 1246 : 3 : 7$\frac{1}{2}$,624.

4. What will be the amount of 50l. in 7 years, at 5 l. *per cent. per annum?* Anſwer, l. 70 : 7 : 1, 2048.

CASE II. When the Amount, Rate, and Time are given, to find the Principal.

RULE. Divide the amount, by the amount of 1 l. for the given time, and the quotient will be the principal.

EXAMPLES.

EXAMPLES.

1. What is the preſent worth of 607 l. 15 s. 0¾ d. due 4 years hence, diſcounting at the rate of 5 l. *per cent.* compound intereſt?
Anſwer, l. 500.

TABLE II. ſhewing the preſent value of 1 l. diſcounting at the rate of 3, 3½, 4, 4½ and 5 l. *per cent.* for any number of years, from 1 to 50, is conſtructed in the following manner.

Amount.		*Preſ. worth.*		*Amount.*	*Preſ. worth.*
As 1,05	:	1	::	1	: ,952309,

and ſo on for any other rate *per cent.* and time: therefore if you multiply the preſent value of 1 l. for the number of years, at the rate *per cent.* by the amount, the product will be the preſent worth.

2. What principal muſt be put to intereſt 3 years, at 4 l. *per cent.* to amount to 899 l. 17 s. 9¾ d.,9552? Anſwer, l. 800.

3. What principal will amount to 1246 l. 3 s. 7½ d.,624, in 5 years at 4½ l. *per cent. per annum?* Anſwer, l. 1000.

4. What is the preſent worth of 70 l. 7 s. 1 d.,2048 due 7 years hence, diſcounting at the rate of 5 l *per cent.* compound intereſt?
Anſwer, l. 50.

5. What ready money will pay a debt of 500 l. due 8 years hence, diſcounting intereſt at 5 l. *per cent. per annum.* compound intereſt? Anſwer, 338 l. 8 s. 4½ d.,864.

By TABLE II. oppoſite 8 years, and under
5 l. *per cent.* you will ſee, 6768393
Multiply by 500

Preſent value =338,4196500= l. 338 : 8 : 4½,864.

Or, by TABLE I. we ſee the amount of 1 l. at 5 l. *per cent.* for 8 years=1,4774554: then, 500,00000000÷1,4774554=338,41965 as before.

CASE III. When the Principal, the Rate, and Amount are given, to find the Time.

RULE. Divide the amount by the principal; then divide this quotient by the amount of 1 pound for one year, this quotient by the ſame till nothing remain, the number of the diviſions will be the time:——Or, divide the amount by the principal, the quotient will be the amount of 1 l. for the given time, which, look for under the given rate in TABLE I. and in a line with it, you will ſee the time.

EXAMPLES

EXAMPLES.

1. In what time will 500l. become 607 l. 15 s. 0¾d. at 5l. *per cent.* compound intereſt? Anſwer, 4 years.

2. In what time will 800 l. become 607 l. 15 s. 0¾ d.,552 at 4 l. *per cent.* Compound intereſt? Anſwer, 3 years.

3. In what time will 1000l. amount to 1246 l. 3 s. 7½d.,625 at 4½ *per cent.* Compound Intereſt? Anſwer, 5 years.

4. In what time will 50 l. amount to 17 l. 7 s. 1 d.,2048 at 5 l. *per cent. per annum* Compound Intereſt? Anſwer, 7 years.

5. In what time will 338 l. 8 s. 4½d.,846 amount to 500 l. at 5 l. *per cent.* Compound Intereſt? Anſwer, 8 years.

500 ÷ 338,41965 = 1,4774554 = 8 years by TABLE I.

CASE IV. When the Principal, Amount, and Time are given, to find the Rate *per cent.*

RULE. Divide the amount by the principal, and the quotient will be the amount of 1 l. for the given time; then extract ſuch root as the time denotes, and that root will be the amount of 1l. for one year, from which ſubtract unity, and the remainder will be the ratio of the rate *per cent.* Or, having found the amount of 1l. for the given time, as above, look for it in TABLE I. even with the given time, and the upper column will ſhew the rate *per cent.*

Ex. I. At what rate *per cent.* will 500 l. amount to 607 l. 15 s. 0 ¾d. forborne 4 years? Anſwer, 5 l. *per cent.*

2. At what rate *per cent.* will 800 l. amount to 899 l. 17 s. 9¾d. ,552 forborne 3 years? Anſwer, 4 l. *per cent.*

3. At what rate *per cent.* will 1000 l. amount to 1246 l. 3 s. 7½d ,624 forborne 5 years? Anſwer, 4½ *per cent.*

4. At what rate *per cent.* will 50 l. amount to 70 l. 7 s. 1 d. ,2048 forborne 7 years. Anſwer, 5 *per cent.*

5. At what rate *per cent.* will 338 l. 8 s. 4 d ½ ,864 amount to 500 l. forborne, 8 years? Anſwer, 5 l. *per cent.*

Thus, 400 ÷ 338,41965 = 1,4774554 = 5 l. *per cent.*

Of

Of ANNUITIES *or* PENSIONS *in* ARREARS.

CASE I. When the *annuity*, or *penſion* is given, the *time* it continues, and the *rate per cent.* to find the *amount*.

RULE. Multiply the amount of 1 l. for one year into itſelf as many times as there are years leſs by one; then multiply this product by the annuity, and ſubtract the annuity therefrom: *Laſtly*, divide the remainder by the ratio *leſs* one, and the quotient will be the *amount*.

EXAMPLE I. What will an annuity of 40 l. *per annum*, payable yearly, amount to in 3 years at 5 l. *per cent?*

Anſwer, 126 l. 2 s.

Thus; 1,05×1,05×1,05=1,157625 and 1,157625×40—40=6,305.

Laſtly; 6,305÷,05=126,1 which reduced = 126 l. 2 s.

Note 1. Inſtead of the above, you may uſe the following

RULE. Multiply the given annuity by the amount of 1 l. for one year, and to the product add the given annuity, and the ſum will be the amount in two years: Multiply this amount by the amount of 1 l. for 1 year, and to the product add the given annuity, and this ſum will be the amount in three years: and thus you muſt continue to find the amount for any number of years.

Thus, in the above example, according to this rule,

40×1,05+40=82 *ſecond year*: and 82×1,05+40=126,1 *third year*.

Note 2d. After the above manner is calculated in TABLE III. the amount of 1 l. annuity from 1 year to 50 years, at 3, 3½, 4, 4½ and 5 *per cent.* And queſtions in this caſe may be wrought more expeditiouſly by obſerving the following directions.

Multiply the Tabular number under the rate and oppoſite the time by the Annuity, the product will be the Amount.

EXAMPLE II. What will an annuity of 40 l. *per annum* amount to in 15 years, allowing 5 l. *per cent* compound intereſt?

Under 5 *per cent.* and oppoſite 15, in Table III. we find

21,5785635

Multiply by 40 the annuity

L. 863,1425400 Anſwer.

EXAMPLE III. What will an annuity of 75 l. *per annum*, payable yearly, amount to in 12 years, at 4 l. *per cent*, compound intereſt? Anſwer, L. 1126,935405.

4. If a ſalary of 200 l. *per annum*, to be paid yearly, be forborne 8 years, what does it amount to at $4\frac{1}{2}$ *per cent*?
Anſwer, L. 1876,00272.

5. If a penſion of 3000 l. *per annum*, payable yearly, be forborne 5 years, what does it amount to at 5 l. *per cent*?
Anſwer, L. 16576,8936.

CASE II. When the *amount*, the *rate per cent*, and the *time*, are given, to find the *annuity*, penſion, &c.

RULE. Multiply the amount of 1 l. for one year by the whole amount, from which ſubtract the whole amount, and divide the remainder by the *amount of 1 l. for one year multiplied continually into itſelf, as many times as there are given number of years leſs by one, ſubtracting unity from and the product, the quotient will be the anſwer.

EXAMPLE I. What annuity, being forborne 3 years, will amount to L. 126,1 at 5 l. *per cent* compound intereſt?
Anſwer, 40 l. *per annum*.

2. What annuity, being forborne 15 years, will amount to L. 863,14254 at 5 l. *per cent*? Anſwer, 40 l. *per annum*.

3. What annuity, being forborne 12 years, will amount to L. 1126,935405 at 4 l. *per cent*? Anſwer, L. 75 *per annum*.

4. What ſalary, being forborne 8 years, will amount to L. 1876,00272 at $4\frac{1}{2}$ l. *per cent*? Anſwer, L. 200 *per annum*.

5. What penſion, being forborne 5 years, will amount to L 16576,8936 at 5 l. *per cent*? Anſwer, L. 3000 *per annum*.

CASE III. When the *annuity*, *amount*, and *ratio* are given, to find the *time*.

RULE. Multiply the amount by the ratio, to this product add the annuity, and from this ſum ſubtract the amount: This remainder being divided by the annuity, the quotient will be the ratio multiplied by the time; which being divided by the amount

* The amount of 1 l. for the rate and time given, may be ſeen in TABLE I. which will greatly facilitate the ſolution of the queſtions in this caſe.

of

of 1 l. for one year, this quotient by the ſame till nothing remain, the number of thoſe diviſions will be equal to the time. Or look for this number under the given rate in TABLE I. and in a line with it you will ſee the time.

EXAMPLE I. In what time will 40 l. *per annum*, payable yearly, amount to L. 126,1 allowing 5 l. *per cent.* compound intereſt for the forbearance of payment? Anſwer, 3 years.

2. In what time will 40 l. *per annum* amount to L. 863,14254 allowing 5 l. *per cent.* for the forbearance of payment?
Anſwer, 15 years.

3. In what time will 75 l. *per annum* amount to L. 1126,935405 allowing 4 l. *per cent.* for the forbearance of payment?
Anſwer, 12 years.

4. In what time will a ſalary of L. 200 *per annum.* amount to L. 1876,00272 at $4\frac{1}{2}$ *per cent?* Anſwer, 8 years.

5. In what time will a penſion of L. 3000 *per annum* amount to L. 16576,8936 at 5 *per cent?* Anſwer, 5 years.

Of the PRESENT WORTH *of* ANNUITIES, PENSIONS, &c.

CASE I. When the *annuity, penſion,* &c. *rate,* and *time* are given, to find the *preſent worth.*

RULE. Divide the annuity, penſion, &c. by the amount of 1 l. for one year, multiplied continually by itſelf as many times as there are given number of years leſs by one, and ſubtract the quotient from the annuity; This remainder being divided by the ratio leſs one, the quotient will be the preſent worth.

EXAMPLE I. What ready money will purchaſe L. 40 annuity to continue 3 years, at 5 l. *per cent.* compound intereſt?
Anſwer, L. 108,92992.

2. What ready money will purchaſe L. 40 annuity to continue 15 years, at 5 *per cent?* Anſwer, L. 415,18632.

3. What ready money will purchaſe L. 75 annuity to continue 12 years, at 4 l. *per cent?* Anſwer, L. 703,8805275

4. What ready money will purchaſe L. 200 annuity to continue 8 years, at $4\frac{1}{2}$ *per cent?* Anſwer, L. 1319,1772.

5. What ready money will purchaſe L. 3000 annuity to continue 5 years, at 5 l. *per cent?* Anſwer, L. 12988,4298.

Note I. The foregoing queſtions may be anſwered, by firſt finding the amount of the given annuity by CASE I. of annuities or penſions in arrears, page 193, and then the preſent worth, or principal by Caſe II page 190 and 191; —By Table I. *or* II. *or* by the firſt part of this caſe.

EXAMPLE I. Wrought after this manner, will ſtand thus:

By TABLE III. Under 5 l. *per cent.* and oppoſite 3, we find

3,152500 = the amount of 1 l. for three years.
Multiply by 40 the annuity.

126,100000 = the amount of L. 40 for three years.

Then, oppoſite 3 years, and under 5 l. *per cent.* in Table II. we have ,8638376
Multiply by 126,1

L. 108,92992136 = the preſent worth of L. 126,1 in 3 years

Or, oppoſite 3 years, and under 5 l. *per cent.* in Table I. we have, 1,157625 the amount of 1 l. in 3 years;
Then; 126,1 ÷ 1,157625 = L. 108,92992136 as before.

Note II. After this manner is conſtructed Table IV. which ſhews the preſent value of 1 l. *per annum.* for any number of years from 1 to 50, at 3, 3½, 4, 4½ and 5 l. *per cent.* and by which table, the above queſtions may be moſt expeditiouſly wrought, by multiplying the tabular number into the annuity, the product of which will be the preſent worth.

Thus, in EXAMPLE I. What ready money will purchaſe L. 40 annuity, to continue 3 years, at 5 l. *per cent?*

Under 5 l. *per cent.* and even with 3 (TAB. iv.) we have 2,723248
Multiply by 40

The product is the preſent worth = L. 108 929920 as before.

CASE II. When the *preſent worth, time,* and *rate* are given, to find the *annuity, rent,* &c.

RULE. Multiply the amount of 1 l. for one year continually into itſelf as many times as there are number of years, and that product again by the preſent worth:—Then multiply the amount of 1 l. for one year, continually into itſelf as many times as there

are

are number of years leſs by one, and this reſult again by the preſent worth; and ſubtract this from the former product, and divide the remainder by the amount of 1 l. for one year, multiplied continually into itſelf as many times as there are number of years, leſs by one, when unity is ſubtracted from the product; and the quotient will be the annuity, rent, &c.

Or, Having found the preſent worth of 1 l. annuity for the rate and time given, by the laſt caſe, divide the preſent worth given thereby, and the quotient will be the annuity.

EXAMPLE I. What annuity to continue 3 years, may be bought for L. 108,92992 compound intereſt at 5 l. *per cent?*

By the latter part of this caſe.

As ,05 : 1,00 : : 1,00 : 20

And 1,05×1,05×1,05=1,157625 = the amount of 1 l. at 3 years.

Then 20,0000000000 ÷ 1,157625 = 17,27675, which ſubtracted from 20 leaves 2,72325 for the preſent worth of 1 l. for 3 years at 5 l. *per cent.*

Laſtly; 108,92992 ÷ 2,72325 = 40 l. annuity.

After this manner is TABLE V. conſtructed, which ſhews the annuity that 1 l. will purchaſe for any number of years from 1 to 50: ſo that queſtions under this caſe may be wrought very expeditiouſly by the help of this table, by obſerving the following

RULE. Multiply the tabular number, correſponding with the rate and time by the purchaſe money, and the product will be the annuity.—

Thus in the laſt example, we find in Table V. anſwering to the rate and time ,3672058

Multiply by 108,92992

39,9999992528320 Anſwer

EXAMPLE II What annuity to continue 15 years, will L. 415,18632 purchaſe, compound intereſt at 5 *per cent?*

Anſwer, 40 l.

3. What annuity to continue 12 years, will L. 703,8805275 purchaſe, at 4 l. *per cent?* Anſwer, L. 75

4. What

4. What annuity to continue 8 years, will L. 1319,1772 purchaſe, at $4\frac{1}{2}$ *per cent?* Anſwer, L. 200

5. What annuity to continue 5 years, will L. 12988,4298 purchaſe, at 5 *per cent?* Anſwer, L. 3000

CASE III. When the *annuity*, *preſent worth*, and *ratio* are given, to find the *time*.

RULE. Divide the annuity by the product of the preſent worth and ratio ſubtracted from the ſum of the preſent worth and annuity: the quotient will be the ratio involved into the time, which being divided by the ratio, and this quotient by the ſame 'till nothing remain, the number of diviſions will ſhew the time:——Or, if the above quotient be ſought for in Table I. under the given rate, in a line with it you will ſee the time.

EXAMPLE I. How long may an annuity of 40 l. *per annum* be purchaſed for L. 108,92992 at 5 l. *per cent.* compound intereſt?
Anſwer, 3 years.

2. How long may an annuity of L. 200 *per annum* be purchaſed for L. 1319,1772 at $4\frac{1}{2}$ *per cent?* Anſwer, 8 years.

3. How long may an annuity of L. 75 *per annum* be purchaſed for L. 703,8805275 at 4 *per cent?* Anſwer, 12 years.

Of ANNUITIES, LEASES, &c. *taken in* REVERSION.

Note. The two caſes under this rule will, I preſume, be more intelligible in Algebraical characters than in words;

Therefore, let p denote the Preſent worth, t the Time, r the Amount of 1 l in 1 year, or one of the times of payment, a the Annuity, and v the time of Reverſion: then,

$$\frac{r^t - 1 \times a}{r - 1 \times r^t \times r^v} = p. \text{ And } \frac{r - 1 \times r^t \times r^v \times p}{r^t - 1} = a$$

Ex. I. What is the preſent worth of L. 100 payable yearly for 8 years, to commence 2 years hence, at 4 l. *per cent?*

$$\frac{1{,}04^8 - 1 \times 100}{1{,}04 - 1 \times 1{,}04^8 \times 1{,}04^2} = \begin{array}{l} L.\ s.\ d. \\ 622\ 9\ 7{,}2 \end{array}$$

2. What

2. What is the preſent worth of the reverſion of a leaſe of 50 l. *per annum*, payable yearly for 5 years, to commence 2 years hence, allowing 5 l. *per cent?* Anſwer, L. 187,00356.

3. What is the preſent worth of L. 10 payable quarterly for 2 years, not to commence till the end of 1 year, allowing 4 l. *per cent?* Anſwer, L. 73 10 s. $7\frac{1}{4}$ d.+

4. What annuity or yearly rent, to be entered upon 3 years hence, and then to continue 5 years, can I buy for L. 187,00356 ready money, at 5 l. *per cent?* Anſwer, L. 50

5. What annuity or yearly rent, to be entered upon 2 years hence, and then to continue 4 years, can I purchaſe for 64 l. 6 s. $6\frac{1}{4}$ d. ,4 + ready money, at 5 l. *per cent?*
Anſwer, L. 20

6. What annuity payable quarterly may be purchaſed for L. 200 to commence 2 years hence, and to continue 3 years, at 4 l. *per cent. per annum?* Anſwer, 19 l. 4 s. 10 d.+

Of purchaſing ANNUITIES *for ever, or* FREEHOLD ESTATES.

CASE I. When the *annuity* or *yearly rent*, and the *rate* are given, to find the Preſent worth.

RULE. As the * ratio is to 1 l. ſo is the yearly rent to the price or Preſent worth.

EXAMPLE I. What is the value of an eſtate, of 250 l. *per annum*, to continue for ever, allowing the buyer 5 l. *per cent.* for his money? Anſwer, L. 5000

2. What is the value of an eſtate of 250 l. *per annum*, to continue for ever, allowing the buyer 4 *per cent.* for his money?
Anſwer, L. 6250

3. The yearly rent of an eſtate is 75 l. what is it worth in ready money, computing intereſt at 5 l. *per cent?* Anſwer, L. 1500

CASE II. When the Preſent worth, and Rate are given, to find the Rent.

RULE. As 1 l. is to its rate; ſo is the preſent worth to its rent.

EXAMPLE I. If a freehold eſtate be bought for L. 5000 allowing 4 *per cent.* to the buyer, what is the yearly rent?
Anſwer, L. 250

* See the table of Ratios from 1 to 10 l. *per cent.* Page 177.

2. If

2. If a freehold eſtate be bought for L. 6250 allowing 4 *per cent.* to the buyer, what is the yearly rent? Anſwer, L. 250

3. If a freehold eſtate be bought for L. 1500 allowing the buyer 5 l. *per cent.* what is the yearly rent? Anſwer, L. 75

CASE III. When the Price, and Rent are given, to find the Rate.

RULE. As the price is to the rent, ſo is one 1l. to the rate.

EXAMPLE I. An eſtate of L. 250 *per annum*, was purchaſed for 5000 L. what rate of intereſt had the buyer for his money?
Anſwer, 5 l. *per cent.*

2. An eſtate of 250 L. *per annum* was bought for 6250 L. what rate of intereſt had the purchaſer for his money?
Anſwer, 4 l. *per cent.*

3, If a freehold eſtate of 75 l. *per annum* were bought for 1500 L. what rate of intereſt had the purchaſer for his money?
Anſwer, 5 l *per cent.*

CASE IV. When the Rate of intereſt is given, to find at how many years purchaſe an eſtate may be bought.

Rule. Divide 100 L. by the rate, and the quotient will be the years.

EXAMPLE I. How many years purchaſe ſhould a gentleman offer for the purchaſe of an eſtate, to have 4 l. *per cent.* for his money? Anſwer, 25 years.

2. How many years purchaſe ſhould a gentleman offer for the purchaſe of an eſtate, to have 5 l. *per cent.* for his money?
Anſwer, 20 years.

CASE V. When the number of years purchaſe are given at which an eſtate is bought or ſold, to find the Rate of intereſt.

RULE. Divide 100 by the number of years, and the quotient is the rate.

EXAMPLE I. A gentleman gives 25 years purchaſe for a freehold eſtate, what intereſt has he for his money?
Anſwer, 4 l. *per cent.*

2. A gentleman gives 20 years purchaſe for an eſtate, what intereſt has he for his money? Anſwer, 5 l. *per cent.*

Of

Of purchaſing FREEHOLD ESTATES *in* REVERSION.

CASE I. The *rate*, and rent of a freehold eſtate being given to find the preſent worth of reverſion.

RULE. Find the preſent value of the eſtate, ſuppoſing the poſſeſſion to be immediate: by caſe 1. page (199), then find the preſent value of the annuity for the time prior to the commencement by Note 2. page (196) Laſtly, ſubtract the value of the poſſeſſion from the value of the eſtate and the remainder will be the value of the reverſion.

EXAMPLE I. Suppoſe a freehold eſtate of L. 50 *per annum* to commence 3 years hence, be to be ſold, what is it worth, allowing the purchaſer 5 *per cent.* for his preſent payment?
Anſwer, L. 863,8376

2. If a freehold eſtate of L. 270 *per annum* to commence 7 years hence, be to be ſold, what is it worth allowing the purchaſer 4 *per cent?* Anſwer, L. 5129,445258

CASE II. The value of a reverſion, the time prior to its commencement, and rate of intereſt being given, to find the annuity or rent.

RULE. Find the amount of the price of the reverſion for the time prior to the commencement by Table I. then find the annuity which that amount will purchaſe by Table V. which will be the anſwer.

EXAMPLE I. The reverſion of a freehold eſtate, to commence 3 years hence, is bought for L. 863,8376—allowing the purchaſer 5 *per cent.* compound intereſt, I demand the annuity or rent?
Anſwer, L. 50

2. The reverſion of a freehold eſtate, to commence 7 years hence is ſold for L. 5129,445258—I demand the yearly rent, allowing the purchaſer L. 4 *per cent?* Anſwer, L. 270

* See caſe I. of the *Preſent Worth* of *Annuities* page (195)

Of REBATE *or* DISCOUNT

Let $s =$ the ſum to be diſcounted, $t =$ the time before it becomes due, $r =$ the amount of 1 l. for 1 year, at any rate *per cent.* and $p =$ the preſent worth : then,

$$\frac{s}{r^t} = p: \quad p \times r^t = s: \quad \text{and} \quad \frac{s}{p} = r^t \dagger$$

† Which muſt be divided continually by r till nothing remain, the number of diviſions will be equal to t the time: *Or*, if the ratio be required, the root muſt be extracted, the power of which will be ſhewn by t

EXAMPLES.

1. What is the ‡ preſent worth, and diſcount of 500 l. payable 3 years hence, at 5 l. *per cent* compound intereſt?
Anſwer, preſent worth l. 431,918799——Diſc. l. 68,081201.

2. What is the preſent worth of 250 l. payable 5 years hence, at 4 l. *per cent.* compound intereſt? Anſwer, l. 205,48177.

3. If l. 431,918799 be received for a debt payable 3 years hence, and an allowance of 5 l. *per cent.* were made to the debtor for preſent payment; I demand the debt? Anſwer, 500 l.

4. If l. 205,48177 be received for a debt payable 5 years hence, and an allowance of 4 l. *per cent.* was made to the debtor for preſent payment; I demand the debt? Anſwer, 250 l.

5. A perſon received l. 431,918799 ready caſh, for a debt of 500 l. Rebate at 5 l. *per cent.* I demand in what time the debt was payable? Anſwer, 3 years.

6. A perſon received l. 205,48177 ready caſh, for a debt o 250 l. Rebate at 4 l. *per cent.* I demand in what time the debt was payable? Anſwer, 5 years.

7. The preſent worth of 500 l. payable 3 years hence is l. 431,918799, I demand at what rate *per cent* Rebate is made?
Anſwer, 5 l. *per cent.*

8. The preſent worth of 250 l. payable 5 years hence, is l. 205,48177, I demand at what rate *per cent.* rebate is made?
Anſwer, 4 l. *per cent.*

‡ *Note*, The preſent worth ſubtracted from the ſum to be diſcounted, leaves the diſcount.

TABLE I.

The amount of one pound in any number of years.

Years.	3 per cent.	3½ per cent.	4 per cent.	4½ per cent	5 per cent.	Years.
1	1,0300000	1,0350000	1,0400000	1,0450000	1,0500000	1
2	1.0609000	1,0712250	1,1816000	1,0920250	1,1025000	2
3	1,0927270	1,1087178	1,1248640	1,1411661	1,1576250	3
4	1,1255088	1,1475230	1,1698585	1,1925186	1,2155062	4
5	1.1592740	1,1876863	1,2166529	1.2461819	1,2762815	5
6	1,1940523	1,2292553	1,2653190	1,3022601	1,3400956	6
7	1,2298738	1,2722792	1,3159317	1,3608618	1,4071004	7
8	1,2667700	1,3168090	1,3685690	1,4221006	1,4774554	8
9	1,3047731	1,3628973	1,4233118	1,4860951	1,5513282	9
10	1,3439163	1,4105987	1.4802443	1,5529694	1,6288946	10
11	1,3842338	1,4599697	1,5394540	1,6228530	1,7103393	11
12	1,4257608	1,5110686	1,6010322	1,6958814	1,7958563	12
13	1,4685337	1,5639560	1,6650735	1,7721961	1,8856491	13
14	1,5125897	1,6186945	1,7316764	1,8519449	1,9799316	14
15	1,5579674	1,6753488	1,8009435	1,9352824	2,0789281	15
16	1,6047004	1,7339860	1,8729812	2,0223701	2,1828745	16
17	1,6528476	1,7946755	1,9479005	2,1133768	2,2920183	17
18	1,7024330	1,8574892	2,0258161	2,2084787	2,4066192	18
19	1,7535060	1,9225013	2,1068491	2,3078603	2,5269502	19
20	1,8061112	1,9897888	2,1911231	2,4117140	2,6532977	20
21	1,8602945	2,0594314	2,2787680	2,5202411	2,7859625	21
22	1,9161034	2,1315115	2,3699187	2,6336520	2,9252607	22
23	1,9735865	2,2061144	2,4647155	2,7521663	3,0715237	23
24	2,0327941	2,2833284	2,5633041	2,8760138	3,2250999	24
25	2,0937779	2,3632449	2.6658363	3,0054344	3,3863549	25
26	2,1565912	2,4459585	2,7724697	3,1406790	3,5556726	26
27	2,2212890	2,5315671	2,8833685	3,2820095	3,7334563	27
28	2,2879276	2,6201719	2,9987033	3,4296999	3,9201291	28
29	2,3565655	2,7118779	3,1186514	3,5840364	4,1161356	29
30	2,4272624	2,8067937	3,2433975	3,7453181	4,3219423	30
31	2,5000803	2,9050314	3,3731334	3,9138574	4,5380394	31
32	2,5750827	3,0067075	3,5080587	4,0899810	4,7649414	32
33	2,6523352	3,1119423	3,6483811	4,2740301	5,0031885	33
34	2,7319053	3,2208603	3,7943163	4,4663615	5,2533479	34
35	2,8138624	3,3335904	3,9460889	4.6673478	5.5160154	35
36	2,8982783	3,4502661	4,1039325	4,8773784	5,7918161	36
37	2,9852266	3,5710254	4,2680898	5,0968604	6,0814069	37
38	3,0747834	3,6960113	4,4388134	5,3262192	6,3854772	38
39	3,1670269	3,8553717	4,6163659	5.5658990	6,7047511	39
40	3,2620377	3,9592597	4,8010206	5,8164645	7,0399887	40

TABLE II.

The present value of one pound payable at the end of any number of years.

Years.	3 per cent.	3½ per cent.	4 per cent.	4½ per cent.	5 per cent.	Years.
1	,9708737	,9661835	,961538	,9569 78	,9523809	1
2	,9425959	,9335107	,9245562	,9157299	,9070294	2
3	,9151416	,9019427	,888996 3	,8762966	,8638376	3
4	,8884870	,8714422	,854804	,8 856 3	,8 27024	4
5	,8626087	,8 19721	,82 9271	,8024510	,783 26	5
6	,837484 2	,8135606	,7903 45	,7678957	,7462154	6
7	,8130915	,7859909	,7599 78	,7348284	,7 0681	7
8	,7894092	,7594115	,73069 2	,703185	,6768393	8
9	,766416	,7 37309	,7025867	,6729044	,6446089	9
10	,74400 39	,7089 9	,675 6 1	,643927	,6139133	10
11	,7224212	,6849457	,6495809	,616198	,5846792	11
12	,7013798	,6617883	,6245970	,589663 8	,5568374	12
13	,6809513	,639404	,6005740	,5642716	,5303213	13
14	,6611173	,6 77817	,5774750	,5399728	,5050679	14
15	,6418619	,5968906	,5552645	,516 7204	,4810 71	15
16	,6231669	,5707059	,5339081	,4944093	,458 115	16
17	,6050164	,5572037	,5133732	,4731763	,4 62,66	17
18	,5873940	,5833611	,493628	,4528 03	,4155206	18
19	,5702860	,5201556	,4746424	,433301	,3957329	19
20	,5536757	,5025659	,4563869	,4140428	,3768891	20
21	,5375492	,4855709	,4388330	,3967874	,3589423	21
22	,52 8925	,4691506	,4219553	,3797008	,3418498	22
23	,5066917	,453 2850	,405726 3	,3633501	,32557 3	23
24	,49 9337	,4379571	,3901214	,3477054	,3100679	24
25	,4776055	,4131469	,3751168	,3327306	,3053027	25
26	,626947	,4088376	,3606892	,3184024	,2812407	26
27	,4501890	,3950122	,3408165	,3046913	,2678483	27
28	,4370767	,3816543	,3334774	,2915706	,2550936	28
29	,424346 3	,3687481	,32065 4	,2790150	,2429463	29
30	,4119867	,3562784	,308 ,186	,2670000	,2313774	30
31	,3999871	,3442303	,2904602	,2555024	,2203594	31
32	,388 337 0	,3325897	,28505 79	,2444999	,2098661	32
33	,3770262	,3213427	,274094	,2339712	,1998725	33
34	,3660449	,3104760	,26355 0	,2238958	,1903548	34
35	,3553834	,2999708	,2544154	,2 42514	,1 8 2902	35
36	,3450324	,2898327	,2430687	,3 50481	,1720574	36
37	,33498 29	,28003 6	,2342968	,196299	,1644356	37
38	,3252261	,2705619	,225 854	,1877504	,1566053	38
39	,3157535	,2614125	,2166706	,1796654	,1491 79	39
40	,3015569	,2525724	,208 890	,1719287	,1420456	40

TABLE III.

The amount of £ 1 *per annum* for any number of years.

Years.	3 per cent.	3½ per cent.	4 per cent.	4½ per cent.	5 per cent.
1	1,0000000	1,0000000	1,0000000	1,0000000	1,0000000
2	2,0300000	2,0350000	2,0400000	2,0450000	2,0500000
3	3,0909000	3,1062250	3,1216000	3,1370250	3,1525000
4	4,1836270	4,2149428	4,2464640	4,2781911	4,3101250
5	5,3091358	5,3624658	5,4163225	5,4707097	5,5256312
6	6,4684098	6,5501521	6,6329754	6,7168916	6,8019128
7	7,6624621	7,7794075	7,8982944	8,0191517	8,1420084
8	8,8923360	9,0516867	9,2142262	9,3800136	9,5491088
9	10,1591061	10,3684958	10,5827953	10,8021142	11,0265643
10	11,4638793	11,7313931	12,0061071	12,2882003	12,5778925
11	12,8077956	13,1419919	13,4863514	13,8411787	14,2067871
12	14,1920295	14,6019616	15,0258054	15,4640318	15,9171265
13	15,6177904	16,1130303	16.6268376	17,1599132	17,7129828
14	17,0863241	17,6769863	18.2919111	18,9321093	19,5986319
15	18,5089138	19,2956808	20.0235876	20,7840542	21,5785635
16	20,1568813	20,9710297	21.8245311	22,7193367	23,6574917
17	21,7615877	22,7050157	23.6975123	24,7417068	25,8403663
18	23,4141353	24,4996913	25.6454128	26,8550837	28,1323846
19	25,1168684	26,3571805	27,6712294	29,0635624	30,5290039
20	26,8703744	28,2796818	29,7780785	31,3714227	33,0659541
21	28,6764857	30,2694706	31,9692017	33,7831368	35,7192518
22	30,5367803	32,3285021	34,2479697	36,3033779	38,5052144
23	32,4528837	34,4604637	36,6178885	38,9370299	41,4304751
24	34,4264702	36,6665282	39,0826041	41,6891963	44,5019988
25	36,4592643	38,9493566	41,6459083	44,5652101	47,7270988
26	38,5530422	41,3131016	44,3117446	47,5706446	51,1134537
27	40,7096325	43,7590602	47,0842144	50,7113236	54,6691264
28	42,9309225	46,2906273	49,9675829	53,9933331	58,4025827
29	45,2188502	48,9107993	52,9662863	57,4230331	62,3227119
30	47,5754157	51,6226772	56,0849377	61,0070696	66,4388475
31	50,0026781	54,4294709	59,3283352	64,7523877	70,7607898
32	52,5027585	57,3345024	62,7014686	68,6662452	75,2988293
33	55,0778412	60,3412100	66,2095274	72,7562262	80,063770 8
34	57,7301765	63,4531524	69,8579085	77,0302564	85,0669593
35	60,4620818	66,9740127	73,6522248	81,4966180	9 ,3203073
36	63,2759442	70,0076031	77,5983138	86,1639658	95,8363227
37	66,1742225	73,4578694	81,7022464	91,0413442	101,6281388
38	69,1594492	77,0288947	85,9703362	96,1382047	107,7095457
39	72,2342327	80,7249060	90,4091497	101,4644239	114,0950250
40	75,4012597	84,5502777	95,0255157	107,0303230	120,7997742

TABLE IV.

The present value of one pound *per annum* for any number of years to come.

Years.	3½ per cent	3¾ per cent	4 per cent.	4½ per cent	5 per cent.	Years
1	,9708737	,9661835	,9615384	,9569378	,9523809	1
2	1,9134696	1,8996942	1,8860946	1,8726677	1,8594104	2
3	2,8286113	2,8016369	2,7750910	2,7489643	2,7232480	3
4	3,7170984	3,6730792	3,6298952	3,5875257	3,5459505	4
5	4,5797071	4,5150523	4,4518223	4,3899767	4,3294766	5
6	5,4171914	5,3285530	5,2421360	5,1578724	5,0756920	6
7	6,2302829	6,1145439	6,0020546	5,8927009	5,7863734	7
8	7,0196921	6,8739555	6,7327448	6,5958860	6,4632127	8
9	7,7861089	7,6076865	7,4353316	7,2687904	7,1078216	9
10	8,5302028	8,3166053	8,1108957	7,9127181	7,7217349	10
11	9,2526241	9,0015510	8,7604767	8,5289169	8,3064142	11
12	9,9540039	9,6633343	9,3850737	9,1185807	8,8632516	12
13	10,6349553	10,3027384	9,9856478	9,6828524	9,3935729	13
14	11,2960731	10,9205202	10,5631229	10,2228252	9,8986409	14
15	11,9376350	11,5174108	11,1183874	10,7395457	10,3796580	15
16	12,5611020	12,0941168	11,6522956	11,2340150	10,8377695	16
17	13,1661184	12,6513205	12,1656688	11,7071914	11,2740662	17
18	13,7535130	13,1896817	12,6592969	12,1599918	11,6895860	18
19	14,3237990	13,7098374	13,1339394	12,5932935	12,0853208	19
20	14,8774748	14,2124033	13,5903263	13,0079364	12,4622103	20
21	15,4150241	14,6979742	14,0291599	13,4047238	12,8211527	21
22	15,9369166	15,1671248	14,4511153	13,7844247	13,1630025	22
23	16,4436083	15,6204104	14,8568416	14,1477748	13,4880738	23
24	16,9355421	16,0583676	15,2469631	14,4954783	13,7986417	24
25	17,4131476	16,4815145	15,6220799	14,8282089	14,0939445	25
26	17,8768423	16,8903522	15,9827691	15,1466114	14,3751853	26
27	18,3270314	17,2853645	16,3295875	15,4513028	14,6430336	27
28	18,7641082	17,6670188	16,6630632	15,7428735	14,8981272	28
29	19,1884545	18,0357670	16,9837146	16,0218885	15,1410735	29
30	19,6004413	18,3920454	17,2920223	16,2888885	15,3724510	30
31	20,0004284	18,7362757	17,5884935	16,5443909	15,5928105	31
32	20,3887655	19,0688654	17,8735515	16,7888908	15,8026766	32
33	20,7657917	19,3902081	18,1476456	17,0228620	16,0025492	33
34	21,1318366	19,7006842	18,4111977	17,2467579	16,1929040	34
35	21,4872200	20,0006610	18,6646132	17,4610124	16,3741942	35
36	21,8322524	20,2904938	18,9082819	17,6660405	16,5468517	36
37	22,1672354	20,5705254	19,1425788	17,8622397	16,7112873	37
38	22,4924615	20,8410873	19,3678642	18,0499902	16,8678927	38
39	22,8082151	21,1024998	19,5844848	18,2296557	17,0170406	39
40	23,1147710	21,3550723	19,7927738	18,4015844	17,1590863	40

TABLE V.

The annuity which one pound will purchase for any number of years to come.

Years.	3 per cent.	3½ per cent.	4 per cent.	4½ per cent.	5 per cent.	Years.
1	1,0300000	1,0350000	1,0400000	1,0450000	1,0500000	1
2	,5226108	,5264004	,5301960	,5339975	,5378048	2
3	,3535303	,3569341	,3603485	,3637733	,3672085	3
4	,2690270	,2722511	,2754900	,2787436	,2820118	4
5	,2183545	,2214813	,2246271	,2277916	,2309748	5
6	,1845975	,1876082	,1907619	,1938783	,1970174	6
7	,1605063	,1635444	,1666096	,1697014	,1728198	7
8	,1424563	,1454766	,1485278	,1516096	,1547318	8
9	,1284338	,1314460	,1344929	,1375744	,1406900	9
10	,1172305	,1202413	,1232909	,1263788	,1295045	10
11	,1080774	,1110919	,1141490	,1172481	,1203888	11
12	,1004620	,1034839	,1065521	,1096661	,1128254	12
13	,0940295	,0970615	,1001437	,1032753	,1064557	13
14	,0885263	,0915707	,0946689	,0978203	,1010239	14
15	,0837665	,0868250	,0899411	,0931128	,0962422	15
16	,0796108	,0826848	,0858200	,0890153	,0922699	16
17	,0759525	,0790431	,0821985	,0854175	,0886991	17
18	,0727087	,0758168	,0789933	,0822369	,0855462	18
19	,0698138	,0729403	,0761386	,0794073	,0827450	19
20	,0672157	,0703610	,0735817	,0768761	,0802425	20
21	,0648717	,0680365	,0712801	,0746005	,0779961	21
22	,0627473	,0659320	,0691988	,0725456	,0759705	22
23	,0608139	,0640188	,0673090	,0706824	,0741368	23
24	,0590474	,0622728	,0655868	,0689870	,0724709	24
25	,0574278	,0606740	,0640119	,0674390	,0709524	25
26	,0559382	,0592054	,0625673	,0660213	,0695643	26
27	,0545642	,0578524	,0612385	,0647194	,0682918	27
28	,0532932	,0566026	,0600129	,0635203	,0671225	28
29	,0521146	,0554453	,0588799	,0624146	,0660455	29
30	,0510192	,0543713	,0578301	,0613915	,0650544	30
31	,0499989	,0533724	,0568553	,0604434	,0641321	31
32	,0490466	,0524415	,0559485	,0595632	,0632801	32
33	,0481561	,0515724	,0551035	,0587445	,0624900	33
34	,0473219	,0507596	,0543147	,0579819	,0617554	34
35	,0465392	,0499983	,0535773	,0572704	,0610717	35
36	,0458037	,0492841	,0528808	,0566058	,0604344	36
37	,0451116	,0486128	,0522395	,0522395	,0598397	37
38	,0444593	,0479821	,0516319	,0554016	,0592842	38
39	,0438438	,0473877	,0510608	,0548556	,0587646	39
40	,0432623	,0468272	,0505234	,0543431	,0582787	40

PART II.

Of BOOK-KEEPING.

BOOK-KEEPING, commonly called Merchants Accompts, implies the method of recording the dealings and tranſactions of buſineſs, in ſo diſtinct and accurate a manner, that a merchant, by his books, may ſhew a juſt and exact ſtate of all his concerns, whenever neceſſity or choice ſhall require it.

In Book-keeping by Single Entry, of which the following is a treatiſe, two principal books are indiſpenſibly neceſſary; *Waſte-book* and *Ledger*: but beſides theſe two, there are others, in ſome degree as uſeful in their kind.

The number of books proper to be uſed by a merchant, ſhop-keeper or manufacturer, are to be regulated according to the nature of the trade, the multiplicity of buſineſs, and the manner of keeping the accompts: And although nine books are made uſe of in the following courſe, yet every perſon may retrench the number, as he ſhall think proper.

The WASTE-BOOK is a complete memorial of every tranſaction in buſineſs, whether it be * buying or ſelling goods, paying or receiving money, exchanging, bargaining, *&c.* recorded promiſcuouſly as they happen with reſpect to time. If any diſpute ariſe in trade, this book is produced as the principal voucher; and therefore merchants cannot be too particular in their records.

This book opens with an inventory of a merchant's money and

* In book-keeping by double entry, goods both bought and ſold are entered in this book; but by ſingle entry, goods bought are not: they are either entered in a book by themſelves, called the Invoice-Book, or poſted from the invoices, or bills of parcels themſelves, immediately into the ledger.

effects, together with the debts owing *to* and *by* him; then follows an exact and minute record of every tranſaction of his trade or commerce, with all the neceſſary circumſtances of time, quantity, quality, price, conditions, and all other particulars which may ſerve to render the entries ſatisfactory and intelligible, both *now* and *hereafter*.

The JOURNAL varies very little from the Waſte-book, except that the proper Drs. and Crs. of every tranſaction are ſtated, in order that they may be poſted in the ledger with leſs fallibility.

The LEDGER is the grand and principal book of accompts, wherein the ſeveral articles belonging to every different perſon or ſubject, which are diſperſed in the journal, are collected together, and ranged in their natural order, of Dr. and Cr. on the oppoſite ſides of their reſpective accompts. The left hand ſide of every page is appropriated for *Debtor*, and the right for *Creditor*; ſo that this book, being duly poſted, affords a merchant a comprehenſive view of all his negotiations; from which he may at any time know the true ſtate of his affairs in every particular. And in order that he may the more readily turn to any accompt therein, an *Index* or *Alphabet* is always prefixed, containing the names of his correſpondents, *&c.* whoſe accompts may be eaſily found, by referring to the initial letters of their ſurnames, againſt which are the reſpective folios.

The LETTER-BOOK contains the copies of all ſuch letters as a merchant or tradeſman ſends, either inland or over ſea, relating to trade; complete copies of which may ſometimes prove of the utmoſt importance to his commercial affairs.

The INVOICE BOOK, in inland trade, contains a copy of the invoices or bills of parcels of all the goods which a merchant buys from his correſpondents, to which I refer you for a copy: But,

The invoice Book, in foreign trade, contains copies of all the invoices of goods which a merchant ſhips off to ſea, or receives from abroad, either on his own private accompt, in partnerſhip, or for others in commiſſion.

The BILL BOOK is ruled in columns, which are marked in ſuch a methodical manner, as to contain in one line *the number of the bill, the drawer, the date, the perſon to whom payable, the uſance, the time when due, whether receivable* or *payable, of whom and when received*, or *to whom and when paid*, and its *value*. But the chief excellency of this book is, that by it a merchant can tell, at one

one view, all the bills he may have in hand, whoſe values are to be received or paid by him, and when they will become due; what bills he has drawn upon his correſpondents, and what *they* have drawn upon him. Surely then, common prudence will dictate ſuch means of maintaining his reputation, as are agreeable to the cuſtoms of merchants and the laws of exchange. To be regular in buſineſs, and punctual to engagements, is the grand ſupport of all commercial honour and credit.

The CASH BOOK is kept in the ledger form, and contains on the Dr. ſide all the particular ſums of money which are daily received; and the ſeveral ſums delivered out in payments are entered on the Cr. with references from each entry to the correſponding accompts in the ledger. This book, to regular merchants, (being the moſt uſeful, next to the waſte-book and ledger,) is of very great importance.

The TILL-BOOK, ſo called, becauſe the money received daily for goods ſold and entered therein is put into a Till; each day's occurrence is added up in the evening, and at the end of every week, the ſum total is carried into the waſte-book.—This book is only kept by ſhop-keepers, who have a good deal of retail trade, and is never uſed in book-keeping by double entry.

The BOOK of HOUSE EXPENCES has its name from its uſe, which is to contain the daily expences of a family, *&c.*

It it impoſſible to determine the exact number of books proper to be uſed in trade: thoſe already mentioned are the principal; and when any perſon knows the uſe of them, he will be at no loſs to adopt others as auxiliaries, which ſhall be proper for his reſpective trade. Thoſe perſons, however, who make uſe of the feweſt books, are reckoned the beſt accomptants.

NOTE to the READER.

The reader is requeſted to remark, that beſides the books already deſcribed, I have added one more to the number, under the title of *Bill of Exchange-book*, &c. wherein are inſerted, in a regular order and ſucceſſion, copies of all the bills of exchange, receipts, promiſſory notes, bills of parcels, bills on book debts, and accompts current, which naturally occur in the courſe of the book-keeping by ſingle entry.—This book is obtruded upon the public with no other view than to make the *tyro* well aequainted with that *moſt valuable* part of book-keeping, which, I preſume, is diſcuſſed in the cleareſt

manner poſſible. But it may not be improper further to obſerve, that, in the tranſacting of *real* buſineſs, no book of this kind would exiſt or appear.

Note, In the margin of the invoice-book, waſte-book, *&c.* the following characters allude to thoſe rules of arithmetic, by which the entries may be caſt up in the ſhorteſt manner.

A.	ſtands for	Addition.
S.	– –	Subtraction.
M.	– –	Multiplication.
C.M.	– –	Compound Multiplication.
D.	– –	Diviſion.
R.^{3}	– –	Rule of Three.
Pr.	– –	Practice.
C.	– –	Caſe.
D°, *do.*	– –	*Ditto, or* the ſame.
B. F.	– –	Brought forward accompts.
ea.	– –	Each.
dz.	– –	Dozen.
in.	– –	Inch.
com.	– –	Common.

*** The initial letters of the rules are omitted in the waſte-book, of thoſe entries which may be caſt up by addition or multiplication only: and the reader is particularly requeſted to attend to the notes inſerted at the bottom of ſome pages in the invoice-book.

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The

The LETTER BOOK.

GENERAL DIRECTIONS *for Inditing* LETTERS *of* BUSINESS.

A Tradeſman's letter ſhould be plain, conciſe, and always to the purpoſe; free from abſtruſe or ſtudied expreſſions: His meaning ſhould be expreſſed in terms ſo clear and intelligible, as may neither give his correſpondent heſitation nor doubt: And as there ſhould be nothing in them obſcure nor ſuperfluous, ſo ought they to be exempt from affected abbreviations; for theſe will frequently render them ambiguous.

All orders, commiſſions, and material circumſtances in trade, are to be plainly and explicitly mentioned: Nothing ſhould be preſumed, underſtood nor implied. You muſt tell your correſpondent expreſſly what you would have done on *his* part, and what he may depend on *yours*. He ſhould be fully informed of your intentions, to prevent the poſſibility of a diſappointment: Becauſe, when orders are darkly given, they are doubtfully obſerved; and a miſtake in commerce muſt always be of conſequence.

The correſpondent, for *his* part, on the receipt of letters, ſhould be equally as punctual in anſwering every article therein referred to him: To each particular he ought to reply diſtinctly and directly. Nothing muſt be omitted by him, nor left in ſuſpenſe, leſt the correſpondence ſhould ſuffer for want of proper intelligence.

The ſtyle fit for letters ſhould be ſhort, familiar, neat, and ſignificant, like that of converſation. The trader ſhould converſe with his correſpondent, by letter, juſt as he would do were he to meet him perſonally; and whatever he would ſay face to face, is proper to be written on any point of buſineſs.

N. B. The following letters might, with propriety, be written by any perſon in buſineſs; and they are peculiarly adapted for the following courſe of book-keeping.

Mr.

Mr. *William Ames*, *Edinburgh*, 1ſt *December* 1776.

SIR,

HAVING completed my apprenticeſhip with Mr. John Goodman, I am inclined, by the advice of my friends, to begin buſineſs for myſelf. I have taken a convenient houſe for that purpoſe in this city, and deſign to open about the beginning of January next. The high opinion I have entertained of your honour, and abilities in your profeſſion, has induced me to ſend you herewith an order for a ſmall aſſortment of goods, which I make no doubt you will take care to ſend me very good of their kinds. Reſpecting the payment, I muſt inform you, that it will be more agreeable to me to remit you the amount of your invoice upon the receipt of the goods, than to take the uſual credit of ſix months, provided you deduct $2\frac{1}{2}$ *per cent.* diſcount for prompt payment. I beg you to be careful in chooſing me any new fancy patterns, and I deſire they may be ſhipt on board the firſt veſſel bound for Leith. I expect to be favoured with your anſwer *per* return of the poſt: In the interim, I beg leave to ſubſcribe myſelf,

SIR,

Your very humble ſervant,

W. P.

Note, 1. The commiſſion muſt follow next, a copy whereof ſhould be kept in a book for that purpoſe, called the *Order-Book*, which, I preſume, needs neither copy nor explanation.

2. The reſidence, name, and ſignature of letters ſhonld be arranged in the above order.

Mr. *Thomas Poliſh*, *Edinburgh*, 1ſt *December* 1776.

SIR,

Being about to begin buſineſs for myſelf, I have, as under, ſent you a ſmall order, which I beg you to forward with all ſpeed. From the good opinion I have always had of your candour and integrity in trade towards Mr. Goodman, my late maſter, I perſuade myſelf you will act the ſame towards me: and you may reſt aſſured, that I ſhall at all times anſwer your demands with due honour. I am, Sir, expecting your anſwer,

Your moſt humble ſervant, &c.

Mr. *Joſeph Metal*, *Edinburgh*, *December* 3d 1776.

SIR,

Having been recommended to you by Mr. John Goodman with whom I ſerved an apprenticeſhip, I have herewith annexed a ſmall order, which I hope you will execute upon as good terms, and with the ſame care, as to the reſt of your correſpondents. After having given me the uſual credit, I ſhall remit you a London bill for the amount; and ſhall take every opportunity of encreaſing my commiſſions, and of teſtifying, that I am, with reſpect, Sir,

Your moſt humble ſervant, &c.

Mr.

Mr. *Adam Bennet*, *Edinburgh*, 3d *December* 1776.

SIR,

I have an immediate occaſion for an aſſortment of *files*, as I propoſe to open a warehouſe in the ironmongery buſineſs the beginning of January next. I deſire you, therefore, to ſend me the following order with the utmoſt ſpeed. I need not relate to you, that your intereſt, in a future correſpondence, will greatly depend upon your ſerving me with a good commodity, and on advantageous terms: and as I ſhall ſtudy to ſell my wares as good, and as cheap as others, it will be more agreeable to me to accept of an *extra* diſcount, and remit you your money upon receipt of the goods. I am, Sir,

Your moſt humble ſervant, &c.

Mr. *William Thompſon*, *Edinburgh*, 3d *December* 1776.

SIR,

I have ſent you, below, an order for ſome *knives* and *forks*, which I beg you to forward with all poſſible expedition. I only deſire you to ſerve me upon as reaſonable terms as you do the reſt of your cuſtomers, and you ſhall have no reaſon to complain of payment from me, who am, Sir,

Your humble ſervant, &c.

Mr. *Edward Evans*, *Edinburgh*, 3d *December* 1776.

SIR,

In conſequence of your having been recommended to me by Mr. Thomas Friendly, hardwareman at Newcaſtle, I have hereunto ſubjoined a ſmall order, deſiring you to execute it with the utmoſt diſpatch, and upon the loweſt terms.---Reſpecting the payment, I muſt acquaint you, that either the uſual credit, or a diſcount of $2\frac{1}{2}$ l. *per cent.* for prompt payment, will be agreeable to me; and I beg you to ſignify your intentions with the invoice of the goods.---I expect your ſpeedy compliance, being, Sir,

Your moſt obedient humble ſervant, &c.

Mr. *Henry Darling*, *Edinburgh*, 3d *December* 1776.

SIR,

Some time ago I intimated to you my intentions of beginning buſineſs for myſelf; which being now fixed for January next, I beg you to ſend me the following order as ſoon as poſſible, and you will very much oblige, Sir,

Your moſt humble ſervant, &c.

Mr. *Humphry Everet*, *Edinburgh*, 5th *December* 1776.

SIR,

As I am informed you have juſt received a large quantity of *Siberia iron*, I deſire

deſire you to ſend me *per* the firſt veſſel bound for Leith, two or three tons, well aſſorted for country trade; upon receipt whereof, I ſhall remit you a London draught for the amount. I am, Sir,

You humble ſervant, &c.

Mr. *William Hardſide*, *Edinburgh*, 5th *December* 1776.

SIR,

I hope it will not be a diſagreeable ſurpriſe to ſee below an order on my own accompt.---I am not in the leaſt doubtful of your ſerving me upon ſuch terms as may enable me to ſell as cheap as others; and whenever you have occaſion for money, your demand ſhall either be remitted to you, or you may draw on me for the amount.---Pray be expeditious in ſending, and careful in the choice of my goods, which may tend to encreaſe a correſpondence with, Sir,

Your moſt humble ſervant, &c.

Mr. *Andrew Screwfaſt*, *Edinburgh*, 8th *December* 1776.

SIR,

Being now reſolved to enter into buſineſs for myſelf, as ſoon as I can procure a proper aſſortment of goods to open with, and as I have enrolled you in the liſt of my friends, I have taken this early opportunity of teſtifying my good opinion of you, (from your connections and correſpondence with my late maſter) by ſending you an order, as under, which I beg you to forward with all poſſible haſte.---I ſhall likewiſe make you the ſame offer I have made to my other merchants, *viz.* prompt payment for an *extra* diſcount, and then leave you to chooſe for yourſelf. I am, with great reſpect, Sir,

Your very humble ſervant, &c.

Mr. *Abel Longſide*, *Edinburgh*, 8th *December* 1776.

SIR,

As I am going to begin buſineſs as ſoon as poſſible, I think I cannot do myſelf more juſtice, than by beſtowing a part of my commiſſions upon you.--Your long experience, your candour, and exactitude in commerce, compel me to ſend you the following commiſſion, which I beg may be ſent with your uſual care and diſpatch.---I ſhall never reject any advantageous offer you may make me with regard to payment, nor be diſſatisfied, if nothing but the uſual credit be given to, Sir,

Your moſt humble ſervant.

Mr. *Edward Ruſtnail*, *Edinburgh*, 8th *December* 1776.

SIR,

About a month ago I informed you I was about to begin buſineſs, which being now fixed for January next, I have ſent you the following order, deſiring

desiring you to ship the goods in the first vessel bound for Leith.---As I am sensible that nails are a ready-money article, you may draw on me for the amount of your invoice, and your bill shall receive due honour. I am, Sir,

Your humble servant, &c.

Mr. *Willian Amos*, *Edinburgh*, 5th *January* 1777.

SIR,

I have just received the invoice of the goods I ordered on the 1st *ult.* which I hope will arrive soon, good in quality and condition.---Finding my order too contracted, I have sent you another, which I beg to have forwarded with the utmost dispatch. I am, Sir,

Your most humble servant, &c.

Mr. *Thomas Underwork*, *Edinburgh*, 5th *January* 1777.

SIR,

I desire you to forward the following small order for knives and forks, with all diligence, having already opened shop without that article, which had escaped my memory.---As soon as they come to hand, I will either send you a London draught, or you may draw on me for the amount.---I am Sir,

Your very humble servant, &c.

Mr. *Adam Bennet*, *Edinburgh*, 10th *January* 1777.

SIR,

Agreeable to your letter, with the invoice of the 3d inst. I accept of your extra discount of $2\frac{1}{2}$ l. *per cent.* for ready money, and I have accordingly enclos'd you a London draught at sight, on Messrs. Paywell and Co. bankers in *Lombard Street*, for 8 l. 10 s. 6 d. which undoubtedly will be duly honoured.---The discount of your goods, at 10 l. *per cent.* amounts to 18 s. $11\frac{1}{2}$ d. which, with an abatement of 2 d. and the bill enclos'd, makes 9 l. 9 s. $7\frac{1}{2}$ d. in full.---As I have no reason to complain, either of the quality or prices of your goods, you may be assured, that I shall take the most early opportunity of renewing my commissions: 'till when, I beg leave to subscribe myself, Sir,

Your humble servant, &c.

Note, *See him debited for this bill in the* Waste-book, *January* 10*th.*

Mr. *Humphry Everet*, *Edinburgh*, 11th *January* 1777.

SIR,

I have remitted you, according to promise, a draught on Messrs Paywell and

Co. London, value 47 l. 15 s. payable at ſight; which, with an abatement of 4½ d. is the full amount of your invoice.—I make no doubt of its being duly honoured; and I remain, Sir,

Your humble ſervant, &c.

Note, *See him debited for this bill in the* Waſte Book, January 11th.

Mr. *Edward Evans*, *Edinburgh*, 5th *February* 1777.

SIR,

I received the goods ſafe, as *per* your invoice, of the 4th of laſt month, and muſt acknowledge, that I have no room to complain, either of the quality or prices.—Agreeable to your requeſt, I have remitted you, herewith, a bill on Meſſrs. Cook and Downright, London, value 33 l. 9 s. which, I dare ſay, will be duly honoured.—The diſcount of the goods, at 2½ l. *per cent.* is 17 s. 6 d. which, with an abatement of 4 d. makes up the whole amount of your invoice. I am, Sir,

Your humble ſervant, &c.

Note, *See him debited for this bill in the* Waſte-Book, February 5th.

Mr. *William Amos*, *Edinburgh*, 12th *February*, 1777.

SIR,

Having procured from one of my correſpondents here, a bill on Meſſrs. Short and Ready, bankers in London, value 40 l. I have remitted it to you, deſiring you to credit my accompt for the ſame, together with 2 l. for diſcount.—I doubt not but it will receive due honour; and I remain, Sir,

Your humble ſervant, &c.

Note, *See him debited for this bill in the* Waſte-Book, 12th February.

Mr. *William Thompſon*, *Edinburgh*, 16th *February* 1777.

SIR,

According to your letter, with the bill of parcels, of the 4th *ult.* I accept of 7½ l. *per cent.* diſcount for prompt payment, and I have encloſed a bill on Meſſrs. Paywell and Co. London, for 91. 6 s. 6 d. which, with the diſcount, is the full amount thereof. I am, Sir,

Your humble ſervant, &c.

Note, *See him debited for this bill in the* Waſte-book, 16th February.

Mr.

Mr. *Humphry Everet*, *Edinburgh*, 24th *March* 1777.

SIR,

Agreeable to your requeſt, I have herein enclos'd you a draught at ſight, on Meſſrs. Paywell and Co. London, for 140 l. 7 s. which is the balance of your accompt.—I remain, Sir,

Your moſt humble ſervant, &c.

Note, *See him debited for this bill in the* Waſte-Book, 24th March.

Mr. *Abel Longſide*, *Edinburgh*, 25th *March* 1777.

SIR,

As, by your laſt invoice, you ſeem'd deſirous of prompt payment, for which you offered me a diſcount of 5 l. *per cent.* I have enclos'd you a London bill, value 50 l. which, I dare ſay, will meet with honour when due.—Be pleas'd to credit my accompt for the ſame, and alſo for the diſcount, *viz.* 2 l. 10 s.—I likewiſe deſire you to ſhip me the following goods as ſoon as poſſible, which will greatly oblige, Sir,

Your humble ſervant, &c.

Note, 1. *The order muſt next be ſpecified.*

2. *See him debited for the draught in the* Waſte-Book.

Mr. *Thomas Underwork*, *Edinburgh*, 26th *March* 1777.

SIR,

Having received the goods as *per* your invoice of the 5th inſtant, I have remitted you, herewith, a draught on Meſſrs. Paywell, and Co. Bankers in London, for its amount, *viz.* 34 l. 1 s. 6 d. which will be paid to your order, at ſight. I am, Sir,

Your humble ſervant, &c.

Note, *See him debited for this bill in the* Waſte Book, 26th March.

Mr. *Andrew Screwfaſt*, *Edinburgh*, 9th *April* 1777.

SIR,

You will receive encloſed a draught on Meſſrs. Bywell and Company, value 33 l.—Your invoice comes to 33 l. 17 s. the diſcount whereof, for *prompt* payment, amounts to 17 s. which, with the bill enclos'd, is in full.—I make no doubt of the bill's being accepted, and honourably paid when due.—I am, Sir,

Your humble ſervant, &c.

Note, *See the above bill entered in the* Waſte-Book, 10th April.

Mr. *John Factor*, *Edinburgh*, 11th *April* 1777.

SIR,

This day, by deſire of Mr. Joſeph Hibernian, merchant in Dublin, I have forwarded to you *per* H. Howey's waggon, which will be at Newcaſtle the 14th inſtant, a box, marked and numbered as *per* margin.---I beg you to take the moſt early opportunity of ſhipping them on board the firſt veſſel bound to Dublin, which will oblige, Sir,

J. H. N° 1. *Dublin.*

Your moſt humble ſervant, &c.

Mr. *Joſeph Hibernian*, *Edinburgh*, 11th *April* 1777.

SIR, [With an invoice of goods, amounting to 32 l. 15 s. 3 d.]

To your kind order, I have this day forwarded the goods, as *per* the above invoice, in a box marked and numbered as *per* margin, to Mr. John Factor merchant at Newcaſtle.---I have alſo, *per* this poſt, written to him, to deſire him to ſhip them the firſt opportunity.---Having allowed you a diſcount of 5 l. *per cent* for ready money, I ſhall take an opportunity of enquiring into the courſe of exchange, and ſhall draw on you for the amount; of which you ſhall be early adviſed, by, Sir,

J. H. N° 1. *Dublin*

Your humble ſervant, &c.

Mr. *Joſeph Hibernian*, *Edinburgh*, 23d *April* 1777.

SIR,

Having in my invoice deducted 5 l. *per cent.* diſcount for prompt payment, I have this day drawn on you in favour of Meſſrs. Knobs and Merry, exchange at 109¼ l. *per cent.* for 34 l. which I dare ſay you will pay with due honour. Your future commiſſions will, at all times, be gladly received, and punctually executed, by, Sir,

Your humble ſervant, &c.

Note, *See the above entered in the* Waſte-Book, 24th April.

GENTLEMEN, *Edinburgh*, 29th *April* 1777.

I have drawn on you this day in favour of Mr. William Amicable, or order, at ſight, for 29 l. 19 s. 6 d. being the balance due to me.---I have herewith encloſed our accompt current, (which I preſume you will find right,) and alſo your promiſſory note, and acknowledge myſelf obliged to you for the trouble you have taken on my account.--I remain, with the greateſt reſpect,

GENTLEMEN,

Your moſt humble ſervant, &c.

To Meſſrs. Thomas Paywell and Company, Bankers, London.

Note, *See the bill entered in the* Waſte-Book, 29th April.

INVOICE

INVOICE-BOOK.

EDINBURGH, 1st *January*, 1777.

Received from *William Amos*, Ironmonger, London.

			l.	s.	d.
D.	½	dz. 6 *in.* Banbury ſtock locks, at 5s 6d. *per dz.*			
A&D*	½	dz. *ea.* do. 7, 8, and 9 *in.* at 6s 6d. 7s 6d. and 8s 6d. *do.*			
Do.	½	dz. do. 10, 11, and 12 *in.* at 11s. 13s. & 16s. *do.*			
	1	dz. ſham buck knives and forks, at 22d. *do.*			
A.	1	dz. do. *ea.* at 24d. and 26d. *do.*			
C. M.	2	dz. real buck ditto, at 3s. 6d. *do.*			
Do.	2	dz. do. ſtag do. at 4s. *do.*			
	1	dz. common foot rules, at 2s. 8d. *do.*			
	1	dz. common 2 feet do. at 5s. 4d *do.*			
D.	½	dz. 2 feet gunter's ſcales, at 16s. *do.* –			
M. †	3	ſix in. round japann'd waiters, at 13s. *do.* –			
Do.	3	ſix in. beſt do. at 16s. *do.* – – –			
—	3	eight in. ſlight do. at 22s. *do.* – –			
—	3	eight in. beſt do. at 26s. *do.* – – –			
M.	3	ten in. ſlight round do. at 2s. 6d. *ea.* – –			
—	3	ten in. beſt ditto, at 3s. *do.* – – –			
—	2	eleven in. ſlight ditto, at 3s. *do.* – –			
—	2	eleven in. beſt ditto, at 3s. 3d. *do.* – –			
—	2	twelve in. ſlight ditto, at 3s 3d. *do* – –			
—	2	twelve in. beſt ditto, at 3s. 6d. *do.* – –			
—	2	eighteen in. *com.* Roman tea trays, at 8s 6d. *do*			
—	2	eighteen in. beſt ditto, at 10s. *do.* –			
—	2	twenty in. common ditto, at 10s. *do.* –			
—	2	twenty in. beſt ditto, at 12s. *do.* – – –			
—	2	twenty-four in. common Roman tea trays, at 17s. 6d. *do.* – – – – –			
—	2	twenty-four in. beſt ditto, at 19s. 6d. *do.* –			
		Carried over, L.	14	7	9

* The moſt conciſe way to do this, is to add 6s. 6d. 7s. 6d. and 8s 6d. together, and divide by 2.

If there had been 2 doz. of each, after having added them together, you muſt have multiplied by 2.

† Remember that the price *per* dozen in ſhillings of any goods, will be ſo many pence for every ſingle one; therefore, in this caſe, and in others ſimilar to it, ſet down 13d. or 1s. 1d. and multiply it by 3, the product = 3s. 3d. *Or*, 3 being one-fourth of a dozen, if you divide 13s. by 4, the quotient will be 3s. 3d. as before:—Always take great notice, whether the price be at ſo much *each*, *per dozen*, *per groſs*, &c.

1st *January*, 1777.

From *William Amos*, London.

			l.	s.	d.
		Brought over,	14	7	9
	1	twenty-eight in. common tea tray – –	1	3	0
	1	twenty-eight in. beſt *do.* – – –	1	6	0
M.	2	cruet frames, high bone tops, at 5 s. 6 d. *do.*			
—		ditto, ivory ditto. at 6 s. 6 d. *do.* –			
—		ditto, ſlight ſilver caps, at 20 s. *do.* – –			
		ditto, ſtrong low heads, at 26 s. – –			
	1	neat camp cruet frame, – – –	2	9	0
PrC.23		cwt. 3 qrs. 17 lb. long handled frying-pans, at 2 l. 2 s. *per* cwt. – – – –			
Do. or R.3	1	cwt. 2 qrs. 12 lb. ſhort handled ditto, at 2 l. 4 s. 4 d. *do.* – – – –			
	1	dz. plain iron candleſticks, N° 1, –	0	2	6
A.	1	dz. ditto each, N° 2, 3, 4, and 5, at 3 s.–3 s. 6 d.–4 s. 4 s. 6 d. *per* dz. – – –			
D.	½	dz. ſingle ball'd do. N° 1, at 3 s. 6 d. *per* dz.			
A. & D.	½	dz. ditto ea. N° 2, 3, 4, and 5, at 4 s.–4 s. 6 d. 5 s.–5 s. 6 d. *do.* – – –			
—	½	dz. double ball'd *ea* N° 4 & 5, at 9 s.–10 s. *do*			
—	½	dz. plain crewed ea. N° 2 & 3, at 8 s.–9 s. *do.*			
	1	dz. com. varniſh'd padlocks, at 2 s. *do.* –			
—	½	dz. do. ea. at 2 s. 6 d.–3 s.–3 s. 6 d *do.* –			
	½	dz. good double bolted do. at 7 s. 6d. *do.* –			
D.	1	dz. ſecret thumb-locks, at 7 s. 6 d. *do.*			
—	½	doz. letter-locks, at 13 s. *do.* – –			
—	½	dz. ſmall braſs dog collar-locks, at 16 d. *do.*			
A. *	1	doz. ditto each, at 20 s.–24 s.–30 s. *per* groſs.			
	1	dz. com. X key'd box-locks, at 3 s. *per* dz. –			
	1	doz. good X ward ditto, at 4 s *do.*			
	1	dz. bright ſtrait cupboard locks, at 4 s. 6 d. *do.*			
—	1	dz. do. to cut do. ea. at 4 s. 6 d.–5 s. 6 d. *do.*			
	1	dz. good bright cheſt locks, at 7 s. 6 d. *do.*			
D.	½	dz. fine do. ea. at 9 s. 10 s. *do.* – –			
2.		Baſkets, cords, and Wharfage – – –	0	4	6
		L.	37	7	8½

Note, The figures in the margin ſhew in what folio of the Ledger they are poſted.

* As many ſhillings as there are in the price of a groſs, (*viz.* 12 doz.) ſo many pence will 1 doz. amount to: therefore, you are to ſet down 20 d. 24 d. and 30 d. and add them together:—the ſum will be the amount of 3 doz. of each, at 20 s. 24 s. and 30 s. *per* groſs.

3d *January*, 1777.

From *Thomas Poliſh*, Cutler, London.

		l.	*s.*	*d.*
	1 dz. ſtrong beaufet cork-ſcrews, at 7 s. *per* dz.			
A.	1 dz. barrel ditto ea. at 4 s. 6 d.–5 s. 6 d.–6 s 6d. –8 s. *do.* – – – –			
	1 dz. fine London razors, at 20 s. *do.* –			
D.	½ dz. fine pen-knives, at 14 s. *do.* – –			
M.	1 dz. beſt London gilt buckles, at 4 s. 6 d. *per* pair.			
—	6 pair filagree ditto, at 5 s. 6 d. *do.* –			
—	6 cards ſleeve buttons, gilt, at 4 s. *per* card. –			
	1 dz. ſorted ſilver thimbles, at 13 s. *per* dz. –			
A&M*	6 pair fine ſteel ſnuffers each, at 1 s. 6 d.–2 s.–2 s. 6 d. *per* pair. – – –			
—	2 poliſh'd ſtands for do. ea. at 3 s.–4 s.–5 s. *ea.*			
1.	Box – – – – –		0	0 6
	L.	12	3	0

From *Joſeph Metal*, Ironmonger, London.

M.	2 ſets fire ſhovel & tongs, at 2 s. 9 d. *per* ſet –			
A&M	2 ſets do. ea. at 3 s. 9 d.–3 s. 3 d.–4 s. 3 d.–5 s. 6 d. *do.* – – – –			
CM.c5	42 feet common iron fenders, at 8 d. *per* foot.			
A&M	2 doz. iron ſnuffers each, at 22 d.–24 d.–30 d.–42 d. *per* doz. – – – –			
A.	dz. T. hinges ea. at 2s 6d--3s--3s 6d--4s 6d *do.*			
—	1 dz. inſide cheſt hinges ea. at 6s-7s-8s-& 10s *do.*			
M.	ſix in. 2 bolt braſs knob rim locks, at 30s *do.*			
A&M	do. ea. 7, 8, 9 & 10 in. at 3s 4d–4s 6d–6s 6d–8s 6d each			
A.	groſs wood ſcrews, ea. 14d-16d-20d-2s *per* gr.			
M.	pair braſs candleſticks, at 3s *per* pair -			
A&M	do. ea. ſcrew-up do. at 3s 6d–4s-5s.–6s *do.*			
	dz. 26 in. hand-ſaws completed, at 50s *per* dz.			
M.	2 ſix and a half feet pit ſaws, at 21s each.			
—	2 ſeven feet ditto, at 24s ditto			
2.	Baſket and cord - - - - -		0	2 0
	L.	24	4	4

* Add the price of 1 pair of each ſort together, and multiply this ſum by 6.—I ſhall omit, for the future, to put down references to thoſe entries which may be done by addition or multiplication only.

——3d *January*, 1777.——

From *Adam Bennet*, Sheffield.

		L.	s.	d.
	1 groſs ſorted files 4½ inches, at 14 s. *per* groſs			
A.	1 groſs ditto, each 5, 5½, 6, 6½ inches, at 15 s. 16 s.–17 s.–19 s.–*do.*			
—	1 doz ſmiths' raſps, each 10 and 11 inches, at 9 s. 11 s. *per* doz. - - -			
A.	1 doz. do. ea. 12½ and 13 in. at 10s 12s *do.*			
CMc5	2 qrs. 15 lb. ſorted rubbers, at 6½ d. *per* lb.			
M.	2 dz. 4-inch pit ſaw-files, at 20 d. *per* dz.			
A&M	2 dz ea. do 5½ and 7 inches, at 2s 2d–4s 3d *do.*			
	1 dz. 14-in. common raſps, at 11s do.			
3.	Baſket - - - -		0	1 0
	Diſcount 7½ l. *per cent.* and 6 months credit; 10 *per cent.* money - -			
	L.	9	9	7½

——4th——

From *William Thompſon*, Sheffield.

M	6 doz. ivory Chineſe table knives and forks, with London blades, at 12 s. *per* doz.			
—	3 doz. ditto, deſſerts ditto, 7 s. 6 d. *do.*			
—	6 doz. green Chineſe table ditto, 13 s. 6 d. *do.*			
—	3 doz. ditto deſſerts, 8 s. 6 d.			
3	Box for ditto - - - -		0	1 0
	Diſcount 5 *per cent.* and 6 months credit, or 7½ ready money - - -			
	L.	10	2	0

From *Edward Evans*, Cutler, London.

M.	3 beſt four doz knife caſes, at 16s each -			
—	3 four doz. lacker'd ditto, 14s *do.* - -			
—	3 two doz. beſt ſilver'd ditto, 11s 6d *do.* -			
—	3 three doz. ditto, 17s *do.* - -			
—	3 two doz. common caſes, 7s 6d *do.* - -			
—	6 two doz. paper ditto, 3s *do.* - -			
—	2 doz. cedar pencils, 1s *per* doz. -			
A&M	2 doz. ditto, each, at 1s 6d–2s and 2s 6d *do.* -			
	1 doz large lead pencils, 9s ditto -			
	1 doz. red chalk ditto, 2s 6d ditto -			
M.	3 ivory pocket memorandum-books, 1s 8d each			
A&M	3 ditto, each 2s–2s 6d–3s and 4s *do.* -			
	Carried over, L.	14	1	0

4th *January* 1777.

From *Edward Evans*, Cutler, *London*.

		L.	s.	d.
	Brought over,	14	1	0
	3 fluted ſilver pencil-caſes, at 3s 6d *ea.* -			
—	3 ditto ſmaller, 3s *do.* - -			
—	6 plain do. ea. with ſeals, 3s 6d–3s & 2s 6d *do.*			
—	6 plain tops ditto, each 2s 6d and 2s *do.* -			
	3 ditto, each, without tops, 2s and 1s 6d *do.*			
	2 pair pocket piſtols, at 36s *per* pair -			
—	2 pair neat inlaid do. ſcrew barrels, 42s *do.*			
—	3 ſteel inſtrument-caſes, ea. at 12s and 14s *per* dz.			
—	6 ditto, ea. 16s–18s–24s–30s and 36s *do.*			
—	3 ditto, 3s 6d–4s-4s 6d-5s-5s 6d ea. -			
3.	Box - - - - -	0	2	6
		34	6	6

From *Henry Darling*, Ironmonger, *London*.

D.	6 doz. beſt double-worm poliſh'd gimblets, at 14s *per* groſs - - - -			
—	6 doz. ditto, ſingle ditto, 12s *do.*			
	1 groſs beſt HV box head black ditto, 10s *do.*			
	1 groſs ſorted common box heads, 6s *do.*			
M.	3 doz. ſorted plane irons, 3s 6d *per* doz.			
—	3 doz. ſorted gouges, 4s *do.*			
—	3 doz. ſorted chiſels, 5s *do.*			
CMc5	87 lb. carpenters adz's, at 7d *per* lb.			
	1 doz. half-inch black augers, at 6s *per* doz.			
	1 doz. each ditto, $\frac{5}{8}$, $\frac{3}{4}$ inch. 7s and 8s *do.*			
	1 doz. ditto, $\frac{7}{8}$, 1-inch. 10s and 12s *do.*			
	6 doz. ditto, $1\frac{1}{4}$, $1\frac{1}{2}$ inch. 14s and 16s *do.*			
	6 pair plated ſpurs, 3s *per* pair			
A&M	6 pair ditto each, 3s 6d–4s–4s 6d and 5s *do.*			
3.	Baſket - - - -	0	1	0
		15	11	3

From *Humphry Everet*, *Newcaſtle*.

Pr. c.23	2 tons. 17 cwt. 3 qrs. 17 lb. Siberia iron, at 16l 10s *per* ton.			
4.	To be paid for upon receiving it.			

4th *January*, 1777.

From *William Hardſide*, Cutler, *London*.

		L.	s.	d.
	6 pair poliſh'd ſugar nippers, at 2s *per* pair.			
A&M	3 pair ditto each, at 2s 3d–2s 6d *do.* -			
—	3 pair plated ſhoe-buckles each, at 2s 3d & 2s 6d *per* pair - - -			
—	3 pair ditto each, at 2s 9d and 3s *do.*			
—	6 pair piereed ditto, at 3s 3d and 3s 6d *do.*			
—	6 paper ſnuff-boxes ea. at 3s-2s 6d and 2s *ea.*			
A.	1 doz. ditto, at 1s 6d–1s 3d and 1s *do.*			
A&M	6 paper tooth-pick caſes, ea. at 1s 6d & 1s *do.*			
	2 doz. tortoiſe-ſhell tooth-picks, at 1s *per* dz.			
	1 groſs enamell'd ſorted ſleeve buttons -	1	4	0
—	6 pair fine ſteel ſhoe-buckles, ea. 1s 6d and			
*	1s *per* pair - - - -			
A&M	2 doz. pair pinchbeck do. ſorted at 1s 3d *do.*			
	2 doz do. pierced each at 1s 6d-1s 9d *do.*			
—	2 doz. London ſciſſors, at 14s *per* doz.			
—	3 doz. common ditto, each at 6s and 8s *do.*			
	2 doz buffalo cuttoes, each at 6s and 7s *do.*			
	3 dz do. com. ſpring pen-knives, at 3s 6d *do.*			
4.	3 doz. beſt ditto, at 4s 6d *do.*			
	Box - - - -	0	1	6
		2	1	9

6th

From *Andrew Screwfaſt*, Ironmonger, *London*

	2 doz. Kentiſh hammers, at 5s *per* doz.			
A&M	2 doz. ditto, each at 6s–7s and 8s *do.*			
	1 doz. ditto, at 9s–10s and 12s *do.*			
	2 neat fowling-pieces, at 21s each			
	2 ditto, at 27s ditto			
	2 ditto, at 31s 6d ditto			
	2 ditto, ſilver mounted, at 55s *do.*			
	2 pair pocket-piſtols, at 42s *per* pair			
	1 pair horſe ditto, each at 30s and 36s *do.*			
	6 pair boot-ſtraps, at 1s 6d *do.*			
	6 pair ditto, at 1s 2d *do.* -			
	3 pair ditto, at 2s *do.* - - -			
	6 pair neats' leather bellows, at 15s *per* doz.			
	6 pair ditto, each at 18s and 24s *do.* -			
	Carried over,	27	12	6

4 ys. 3d. or 15d. *per* pair, is 15s *per* doz. therefore, you need only multiply 15s. by 2.

6th *January*, 1777.

From *Andrew Screwfaſt*, Cutler, *London*.

		L.	s.	d.
	Brought over,	27	12	6
	3 pair neat chamber bellows, at 2s 6d *per* pair			
—	6 dz. braſs handles for cheſts of drawers, at 3s *per* dz.			
	6 doz. ditto ea. at 3s 6d-4s and 4s 6d *do*.			
—	6 doz. hat-pins, each at 1s-1s 6d as and 2s *do*.			
4.				
		33	17	0

From *Abel Longſide*, Cutler, *London*.

A&M	2 doz. boot buckles, ea. at 8d and 10d *per* doz.			
—	2 doz. men's watch-chains, each, at 8s 12s 18s and 24s *do*.			
	2 doz. razor caſes and ſtraps, at 20s ditto			
	2 neat Morocco pocket-books, at 8s 6d ea.			
—	2 ditto, each at 10s-12s-14s and 16s *do*.			
	2 pair princes' metal candleſticks, at 9s *per* pair			
—	2 pair ditto, each at 10s 11s 13s and 15s *do*.			
D.	½ doz. ditto, hand-candleſticks, at 5s each			
A&D	½ doz. hard metal tea-bells, each, at 12s 15s and 18s *per* doz.			
	2 neat copper urns, at 21s each			
	2 ditto, ſquare frames, at 31s 6d do.			
	2 ditto, double belly'd, at 36s ditto			
A&M	2 draught-boards, each, at 4s 6d and 5s each.			
5.	Box for ditto	0	16	
		32	14	0

7th,

From *Edward Ruſtnail*, London.

Pr.c.2	50 m. 2d. tacks, at 16d *per* m.			
—	50 m. 3d. ditto, at 22d ditto			
—c.8.	26 m. 4d. nails, at 3s ditto			
—c.1.	24 m. 6d. ditto, at 4s ditto			
CMc2	18 m. 8d. ditto, at 5s 9d ditto			
—c,1.	12 m. 10d. ditto, at 6s 6d ditto			
—	12 m. 12d. ditto, at 7s 3d ditto			
—	10 m. 20d. ditto, at 12s 6d ditto			
—	6 m. 24d. ditto, at 15s ditto			
		40	15	10
5.				

——14th *January*, 1777.——

From *William Amos*, London.

		L.	s.	d.
	6 dz. ſham buck table knives & forks, at 22d *per* dz.			
A&M	6 doz. ditto each, at 24d and 26d ditto			
	3 doz. real buck ditto, at 3s 6d ditto			
	3 doz. ſtag ditto, at 4s ditto			
	2 doz. five barr'd tinn'd curry combs, at 6s ditto			
	2 doz. ſix barr'd ditto, at 7s ditto			
	1 doz. round curry combs, at 3s ditto -			
	1 doz. curry comb-bruſhes, at 8s ditto -			
D.	6 doz. crambo combs, at 9s *per* groſs -			
A&D	6 doz. ditto each, at 11s and 13s ditto -			
	2 doz. tupees, at 18s ditto - -			
	2 doz. beſt buckling, at 2s 6d *per* doz. -			
	2 doz. X key'd box-locks, at 3s ditto - -			
	2 doz. X ward ditto, at 4s ditto -			
2.	Baſket and cord - - -	0	0	8
		6	14	8

——21ſt——

From *Thomas Underwork*, Sheffield.

	6 double * doz. ſilver handled knives and forks, at 24s *per* doz.			
	3 double doz. ditto deſſerts, at 16s ditto -			
	6 double doz. ſtrong table ditto, at 40s ditto			
	3 double doz. ditto deſſerts, at 26s ditto -			
4.	Box	0	1	0
		25	11	0

——4th *February*, 1777.——

From *William Hardſide*, Cutler, *London*.

	4 pair plated ſpurs, at 3s *per* pair -			
A&M	4 pair ditto each, at 3s 6d-4s-4s 6d and 5s ditto			
	3 pair ſwan-neck'd ditto, at 5s 6d ditto -			
	2 pair ditto, with ſilver chains, at 20s ditto			
—	2 pair of fine women's ſciſſors, each at 2s 6d 3s 6d and 4s 6d ditto - -			
	2 doz. beſt London razors, at 20s *per* doz.			
4	Box - - - - -	0	0	4
		9	17	10

* A double dozen means 1 doz. of knives and 1 doz. of forks; for 6 knives and 6 forks are always called a dozen.

10th *February*, 1777.

From *Henry Darling*, London.

		l.	*s.*	*d.*
	2 ſix and a half feet pit-ſaws, at 20s 6d each			
	2 ſeven foot ditto, at 23s ditto - -			
	8 groſs wood ſcrews ſorted, at 20d *per* groſs			
	2 doz. bright cheſt locks, at 6s 6d *per* doz.			
	2 doz dittto, at 7s 6d ditto			
	3 doz. varniſh'd padlocks, at 2s ditto			
A&M	3 doz. ditto each, 2s 6d-3s-3s 3d ditto			
	6 doz. X key'd box locks, at 2s 10d ditto -			
	6 doz. X ward ditto, at 3s 9d ditto			
3.	Baſket and cord - - -		0	8
		10	0	9

18th

From *William Amos*, *London*.

A.	1 doz. Banbury ſtock locks, each 6, 7, 8, and 9 inch. at 5s 6d-6s 6d-7s 6d-8s 6d *per* doz.			
D.	½ doz. do. ea. 10, 11, & 12 in. at 11s 13s 16 *do.*			
	2 twenty-eight in. beſt japann'd waiters at 26s ea.			
	2 twenty-eight in. common ditto, at 23s			
A&M	2 beſt ditto, each 24, 20, and 18 inch. at 19s 6d 12s and 10s ditto - - -			
—	2 common ditto, each 24, 20, and 18 inch. at 17s 6d-10s and 8s 6d ditto - -			
—	6 beſt ditto waiters, each 12, 11, 10, 8, and 6 in. at 3s 6d-3s 3d-3s-2s 2d and 1s 4d ditto			
—	6 common ditto, each 12, 11, 10, 8, and 6 inch. at 3s 3d-3s-2s 6d-1s 10d and 1s 1d ditto			
	2 common cruet frames, at 5s 6d and 6s 6d *do.*			
2.	Box and baſket - - -		0	3 6
		23	18	0

20th.

From *Joſeph Metal*, London.

CMc5	61 feet of fenders, at 7½d *per* foot -			
	3 ſets fire-ſhovel and tongs, at 2s 6d *per* ſet			
A&M	3 ditto, each at 3s-3s 6d-4s-4s 6d and 5s 6d *do.*			
—	6 pair fine ſteel ſnuffers, each 1s 6d-2s-2s 6d 3s and 3s 6d *per* pair - - -			
—	3 poliſh'd ſtands for do. at 2s 6d-3s-3s 6d 4s & 5s			
	2 neat copper urns, at 42s ditto -			
	2 ſix inch braſs knob rim locks, 2s 6d ditto			
	Carried over	16	5	1½

20th *February* 1777.

From *Joseph Metal*, London.

			l.	*s.*	*d.*
		Brought over	16	5	½
A&M	2	braſs knob rim locks, each 7, 8, 9, 10 in. at 3s 3d-4s 6d-6s 6d and 8s 6d ea.			
	1	doz. hand ſaws completed	2	10	0
	3	doz ſorted plane irons, at 3s *per* doz.			
	3	doz. ſorted gouges, at 3s 6d *do.*			
	3	doz. ſorted chiſels, at 4s *do.*			
CM.	32	lb. adz's, at 6½d *per* lb.			
2.			23	9	5½

21ſt.

From *Thomas Poliſh*, London.

	2	doz. tortoiſeſhell pole combs, 15s *per* doz.			
	6	tortoiſeſhell combs in caſes, at 12s *do.*			
A&D	6	ditto, each 15s-18s-21s and 24s *do.*			
D.	6	ditto, tupees, 12s *do.*			
	1	doz. comb bruſhes			
	2	doz. tooth bruſhes, at 16d *do.*	0	3	0
	2	doz. ditto, with ſponge, 21d *do.*			
ABM.	6	pair plated ſhoe-buckles, each 2s 3d-2s 6d-2s 9d and 3s *per* pair			
	6	pair pierced ditto, 3s 3d-3s 6d and 3s 9d *do.*			
	6	paper ſnuff-boxes, each 10d 12d 15d 1s 6d 2s 2s 6d and 3s each			
	6	toothpick caſes, each 1s-1s 6d and 2s ditto			
	2	doz. black ſhoe buckles, at 10s *per* doz.			
	1	doz. knee ditto			
1.		Box.	0	6	0
			0	1	0
		2d *March*, 1777.	17	2	8

From *Abel Longſide*, Cutler, *London*.

	3	Morocco pocket-books at 8s each			
A&M.	3	ditto at 10s 12s 14s 16s and 18s ditto			
	3	pair ſugar nippers, at 2s *per* pair			
—	3	pair ditto, at 2s 3d and 2s 6d *do.*			
	3	doz. cedar pencils, at 2s *per* doz.			
—	3	ivory pocket-books, each at 1s 6d-2s-2s 6d and 3s 6d each			
	2	pair princes' metal candleſticks, 9s *per* pair			
—	2	pair ditto, each at 10s 11s and 13s ditto			
	2	draught boards, each at 3s 6d and 4s each			
	6	pair braſs candleſticks, at 3s *per* pair			
		Carried over	20	7	9

2d. *March* 1777.

From *Abel Longſide*, Cutler, *London*.

		l.	*s.*	*d.*
	Brought over	20	7	9
	2 doz. barrel cork ſcrews, at 4s 6d *per* doz.			
	2 doz. ditto, each at 5s 6d-6s 6d-8s and 10s *do.*			
5.	Box - -	0	1	3
	3d.	23	18	0

From *Humphry Everet*, Newcaſtle.

Pr.c.23	8 tons 10 cwt. 0 qr. 14 lb. Siberia iron, at 16l.			
* 4.	10 s. *per* ton - -			
	To be paid for on receiving it. -			
	5th			

From *Thomas Underwork*, Sheffield.

	8 double doz. ſilver handled knives and forks, at 24s *per* doz. - -			
	4 double doz. ditto deſſerts, at 16s ditto			
	8 double doz. ſtrong ſilver handled table *do.* 40s *do.*			
	4 double doz. ditto deſſerts, 26s ditto			
4.	Box - - -	0	1	6
	7th.	34	1	6

From *Henry Darling*, London.

	2 doz. plain iron candleſticks, at 2s 6d *per* doz.			
	1 doz. ditto each, at 3s-3s 6d-4s-4s 6d ditto			
	1 dz. braſs ball'd, ea. 3s 6d-4s-4s 6d-5s-5s 6d do.			
A&D.	6 plain ſcrew'd, each at 8s-9s ditto			
	2 doz. ſecret thumb locks, at 7s 6d ditto			
	1 doz braſs bag locks, ea. at 2s-2s 6d-3s-4s ditto			
A&M.	2 ſilver top'd cruet frames, at 19s and 25s each			
	6 pair neats' leather bellows, at 15s *per* doz.			
	6 pair ditto, each at 18s and 24s ditto			
	3 pair fine chamber do. ea. 2s 6d & 3s 6d *per* pair			
	2 doz. braſs handles and plates, 3s *per* doz.			
	2 doz. ditto, each at 3s 6d-4s-4s 6d ditto			
	1 doz. T. hinges, each at 2s 6d-3s-3s 6d-4s 6d *do.*			
	1 doz. inſide cheſt ditto, at 6s-7s-8s-10s			
3.	Baſket and wrapper - -	0	2	0
		14	8	6

* *Note*, 1l. *per* ton is 1s. *per* cwt. conſequently, 16l. 10s. *per* ton is 16s. 6d. *per* cwt.

28th *April*, 1777.

From *Edward Ruſtnail*, London.

			l.	s.	d.
CMc2	20 m. 2d tacks, at 16d *per* m.				
—	20 m. 3d ditto, at 1s 10d ditto				
—c. 1.	12 m. 4d ditto, at 3s ditto				
—	10 m. 6d ditto, at 4s ditto				
—	8 m. 8d ditto, at 5s 9d ditto				
—	6 m. 10d ditto, at 6s 6d ditto				
—	6 m. 12d ditto, at 7s 3d ditto				
—	4 m. 20d ditto, at 12s 6d ditto				
—	4 m. 24d ditto, at 15s ditto				
5.			18	17	10

End of the INVOICE BOOK.

BRITISH 3 0C74 MUSEUM

WASTE-BOOK.

EDINBURGH, 1st *January*, 1777.

An Inventory of the ready money advanced for the use of my trade, belonging to me W. P.

		Fol.	l.	s.	d.
J.	Cash,	1	1000	0	0

Note, 1. *Stock* is the first thing a merchant or tradesman begins business with. He must therefore open his books with an *Inventory* of that stock, *viz.* ready money and goods, together with the debts owing *to* and *by* him, if there be any.

2. Having plac'd this *inventory* in the *Waste-book*, as above, you must next open the *Journal* with the same, and there make *Cash* Dr. to *Stock* for the whole sum. This is term'd *journalizing*.

3. It ought to be a fixt rule with every tradesman, and I cannot too much recommend it, to place on the *Cr. side* of his *Cash-Book* every sum he may take from his cash before he pays it away; because, in common book-keeping, that is, by single entry, every person is debited in the ledger, for the cash paid to him, from the Cr. side of the *Cash-book*; and if he omit to set down any one payment, he will certainly find a deficiency in his cash to that amount. As to money paid away for carriage of goods, and other contingent expences, they too need *only* be plac'd on the Cr. side of the *Cash-book*, for they must come there at last: But, lest the Student should be at a loss to account for such occurencies' being in the *Cash-book* only, for want of the practical part of Book-keeping, I thought it requisite to give them a place in *this* book.

4. The figures in the small column preceding those for money, shew in what folios those particular entries are to be found in the Journal; and the *J* in the margin shews that it is journalized.

6th.

J.	Messrs. Paywell & Co. Bankers, *London*, Drs.				
	To cash lodged in their hands	2	500	0	0

Note, 1. There are many merchants in London, who lodge large sums of money in the Bank, or at Bankers, for the use only of paying their tradesmen; which certainly saves them much trouble. And when they do this, some one of the *cashiers* of the bank, or banker's *clerk*, writes in a small book kept particularly for that purpose,

W. P. Dr. *Bank of England (or A. B.)* Cr.

1777.

6th January. *By Cash*, L. 500.

 which

28th *April*, 1777.

From *Edward Ruſtnail*, London.

		l.	*s.*	*d.*
CMc2	20 m. 2d tacks, at 16d *per* m.			
—	20 m. 3d ditto, at 1s 10d ditto			
—c. 1.	12 m. 4d ditto, at 3s ditto			
—	10 m. 6d ditto, at 4s ditto			
—	8 m. 8d ditto, at 5s 9d ditto			
—	6 m. 10d ditto, at 6s 6d ditto			
—	6 m. 12d ditto, at 7s 3d ditto			
—	4 m. 20d ditto, at 12s 6d ditto			
—	4 m. 24d ditto, at 15s ditto			
5.		18	17	10

End of the INVOICE BOOK.

BRITISH 3 OC74 MUSEUM

WASTE-BOOK.

EDINBURGH, 1st *January*, 1777.

An Inventory of the ready money advanced for the use of my trade, belonging to me W. P.

		Fol.	l.	s.	d.
J.	Cash,	1	1000	0	0

Note, 1. *Stock* is the first thing a merchant or tradesman begins business with. He must therefore open his books with an *Inventory* of that stock, *viz.* ready money and goods, together with the debts owing *to* and *by* him, if there be any.

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4. The figures in the small column preceding those for money, shew in what folios those particular entries are to be found in the Journal; and the *J* in the margin shews that it is journalized.

6th.

J.	Messrs. Paywell & Co. Bankers, *London*, Drs.				
	To cash lodged in their hands	2	500	0	0

Note, 1. There are many merchants in London, who lodge large sums of money in the Bank, or at Bankers, for the use only of paying their tradesmen; which certainly saves them much trouble. And when they do this, some one of the *cashiers* of the bank, or banker's *clerk*, writes in a small book kept particularly for that purpose,

W. P. Dr. *Bank of England (or A. B.)* Cr.

1777.
6th *January*. *By Cash*, L. 500.

 which

Edinburgh, 6th *January*, 1777.

		Fol.	l.	s.	d.
	which is all the security the merchant has: and whenever he wants to pay a tradesman, as, suppose 50 l. he writes a bill, as follows, in a check note given him for that purpose:				
	N° 182. 6th *January* 1777. *Pay Mr.* EDWARD NEEDFUL, *or bearer, fifty pounds.* *To* W. P. *The Cashiers of the Bank.*				
	Note, 2. You are to suppose the above cash to be lodg'd in your Bankers' hands, partly on account of its being secure, and partly for the convenience of drawing bills upon them to pay tradesmen. The scholar should therefore be put to draw out a copy of such a promissory note as he would expect, and be willing to receive from the above persons, by way of security for the said sum; and when he shall have done it, let him take it to his Tutor to be corrected, if necessary; or, let him refer to the *Bill of Exchange Book*, *A*, where he will see a proper copy. 3. After having received this note, he should next refer to the *Bill-book*, and enter it in its proper columns; which, for instructions, let him refer to that also. 4. This entry is to be journalized, in the same manner as it stands above.				
J.	Paid freight and carriage of goods -		2	0	3 6
	Note, To journalize this, make Cash, Cr. By freight and carriage of goods L. 0 3 6 *** See Note the 3d. Page 1st.				
	8th.				
J.	Paid freight and carriage of goods -		2	0	2 6
	10th.				
J.	Paid freight and carriage of goods -		2	0	1 8
	Adam Bennet, Sheffield, Dr.				
	To my draught on Paywell and Co. at sight		2	8	10 6
Pr C 24.	To discount at 10 l. *per cent.* of 9 l. 9 s. 7½ d.			0	18 11½
J.	To abatement - - -			0	0 2
	L.			9	9 7½
	Note, 1. There is no necessity to keep a journal in *common* Book-keeping, except where merchants deal in a great *variety* of articles, their trade con-				

Edinburgh, 11th January, 1777.

Fol	l.	s	d.

ſiderable, and their entries in the waſte-book pretty *long*: for, in *thoſe* of 50 or 100 different articles, to a perſon at one time, 'tis no wonder if, in the hurry of buſineſs, they miſtake in the calculation of one or more of them, eſpecially if you allow that they are frequently interrupted, and obliged to anſwer other cuſtomers upon buſineſs at the ſame time. To ſuch as theſe, I recommend a *journal*, as they have it in their power to correct herein, at leiſure, what errours they may have committed in the *waſte-book*, through precipitation, or want of time.

2. Having placed the entry in the waſte-book, the next thing to be done, is, to draw the bill on Meſſrs. Paywell and Co. for the ſum mentioned.—The ſcholar ſhould do it to the beſt of his judgment, and then refer to the *bill of exchange book*, *B*, where he will ſee a proper copy, from which he may enter it in the Bill-book.

3. Indite a letter proper to ſend to Bennet on this occaſion, after which refer to the letter-book, (fol. 5.) for a copy.

4. The only difference between the journal and waſte-book, in this caſe, is, the ſur-name muſt be put firſt.

5. As you have drawn on *Meſſrs. Paywell and Co.* London, for 8l. 10s. 6d. their accompt muſt be credited for that ſum. You may therefore journalize it in the following manner, immediately below Adam Bennet's entry: thus,

Meſſrs. Paywell and Co. *London*, - Crs.
By my draught to Adam Bennet, at ſight. - - L. 8 10 6

But the *beſt* and moſt *clerk-like* method of doing it, is, to credit *Meſſrs. Paywell and Co's.* accompt from *Adam Bennet's* accompt in the ledger: which you will ſee I have followed, except in this one example.

J. Paid freight and carriage of goods - 3 1 15 6

Humphry Everet, Merchant, *Newcaſtle*, Dr

To my draught on *Paywell and Co*, London 3 47 15 0
J. To abatement - - - 0 0 4½

L. 47 15 4½

Note, 1. To journalize this, you muſt make
Everet Humphry, Merchant, *Newcaſtle*, Dr.
To my draught on Meſſrs. Paywell and Co. L. 47 15 0

Edinburgh, 13th *January* 1777.

		Fol.	l.	s.	d.
	2. Draw out the bill of exchange on your *Bankers*, then refer to the *bill of exchange book*, C. for a copy; from which enter it in the bill book.				
	3. As, by promiſe, you agreed to pay him ready money, (ſee the letter-book, fol. 3rd,) the draught on your bankers ſhould be ſent immediately to Everet, and a letter with it; for a copy whereof, pleaſe to refer to the *Letter-book*, fol. 5th.				
	Mr. *John Friend*, Dr.				
	1 cruet frame, ſilver tops - -	3	1	5	0
	1 twenty-eight inch japann'd tea tray -		1	8	0
J.	*Deliver'd to Mrs Friend*,		2	13	0
	per E. Truſty				

Note, 1. To journalize this, (and every other entry of this kind) you muſt make the perſon Dr. *viz.*

Friend, John, Dr.

To 1 cruet frame, ſilver tops -	L.	1	5	0
1 twenty-eight inch japann'd tea tray - -		1	8	0
		2	13	0

The only difference between the waſte-book and journal, in entries like this, is, that the perſon's ſurname is put firſt, with *To* before the firſt article --*(See the Journal.)*

2. As moſt people receive a bill of parcels or invoice with the goods they purchaſe, the ſcholar ſhould draw out one to John Friend: If he be at a loſs, let him refer to the *bill of exchange book*, D, for a copy, where he will ſee the buyer and ſeller's names, and reſidence, *&c.* arranged in proper order.

3. Pray obſerve, that it is as neceſſary to authenticate the *delivery* of a parcel of Goods, as it is to ſet them down in the *waſte-book*; becauſe, in caſe of a law-ſuit, you never can recover the value thereof, if diſputed, unleſs you can *prove* their delivery, and that *not* by yourſelf, but by your *ſervant*, or any one employed by you. Therefore, immediately after the delivery of a parcel of goods, your ſervant ſhould write underneath, (as in the above entry,) Delivered to ſuch a perſon, *per* A. B.

Mr. *William Builder*, Edinburgh, Dr.

A&M	3 Banbury ſtock locks, each 6 & 7 inch. at 8s and 9s *per* doz.					
	Carried over	3	0	4	3	
			0	4	3	

Edinburgh, 13th *January* 1777.

	Mr. *William Builder*, Dr.	Fol	L.	s.	d.
	Brought over	0	4	3	
D.	2 common foot rules, at 4s *per* doz.	3			
	2 two feet ditto, at 8s ditto				
	½ dz. × key'd varniſh'd cheſt locks, at 4s *do.*				
	½ doz. × ward ditto, at 5s ditto				
J.			0	10	9

Sold for ready money.

	1 pair fine London ſciſſors	4	0	2	0
	1 pair fine ſteel ſnuffers and ſtand		0	9	6
	2 pair braſs candleſticks, 6s 6d *per* pair				
	1 pair plated ſpurs		0	6	6
	1 pair ſugar nippers		0	3	6
	1 paper ſnuff box		0	3	0
	1 ditto toothpick caſe		0	1	6
	2 toothpicks, at 2d each				
	1 eighteen inch beſt japann'd tea tray		0	14	0
	1 ten inch ditto waiter		0	4	0
Mr W Willing	2 doz. Chineſe ivory knives and forks, at 15s *per* doz.				
	1 doz. ditto, deſſerts		0	10	0
	1 doz. common ſham buck ditto		0	2	9
	1 four doz. knife-caſe, poliſh'd furniture		1	1	0
	1 ivory memorandum-book		0	2	6
J.	2 cedar pencils, at 4d each				
			6	4	3

Note, 1. To journalize this, you muſt make
Caſh, Dr.
To ſundries - - L. 6 4 3

Note, 2. See in the bill of exchange book, *E.* a copy of a bill of parcels, with a receipt given to William Willing for what *he* bought.

Mr. *Thomas Rider*, Dr.

Carri'd to fo. 11 B F.	1 pair plated ſpurs		0	7	0
	All ſmall accompts of this kind, marked as in the margin, are not to be journaliz'd.				

——*Edinburgh* 14th *January*, 1777.——

		Fol	L.	s.	d.
	Thomas Wickam, Eſq; Dr.				
	1 fine paper ſnuff box - - -	4	0	3	6
	1 fine ditto toothpick caſe - -		0	2	6
	1 pair plated ſpurs - - -		0	5	6
	1 two doz. ſilver'd furniture knife caſe		0	15	0
	2 doz. beſt green Chineſe table knives and				
J.	forks, at 18s *per* doz.				
			3	2	6
	Note, This muſt be journaliz'd in the ſame manner as John Friend's, fol. 4th.				
	——15th.——				
	Mr. *Joſeph Young*, Dr.				
Tof. 11 B F.	1 twelve inch Banbury ſtock lock –		0	2	0
	Mr. *Edward Carpenter*, Dr.				
A&D	½ doz. T. hinges, each 3s 6d–4s *per* doz.	4			
A&M	3 pair inſide cheſt ditto each, at 8s–9s *do.*				
D.	½ groſs ſorted wood ſcrews, 2s 6d *per* gr.				
	1 ſix inch two bolt braſs knob rim lock		0	3	3
	1 eight inch ditto, at 5s 6d—1 nine inch ditto,				
	at 7s 6d – – – – –				
	2 twenty-ſix inch beſt hand-ſaws, completed,				
	at 5s 3d each – – –				
	1 beſt pit-ſaw - - -		1	6	0
J.					
			3	2	0
	Note, Enough has been ſaid about journalizing entries like this.				
	Mr. *Adam Lack*, Dr.				
Tof. 11 B F.	1 pair braſs candleſticks - -		0	4	0
	——17th.——				
	Mr. *William Builder*. Dr.				
	½ doz. ſorted plane-irons, at 6s *per* doz.	4			
	½ doz. ſorted chiſels, at 8s ditto –				
	Carried over		0	7	0

Edinburgh, 17th *January*, 1777.

		Fol	L.	s.	d.
	Mr. William Builder, Dr.				
	Brought over	4	0	7	0
	2 black augers, each ½ inch ⅝, at 8s-9s *per* dz.				
	1 adz, weight 6 lb. at 7½d *per* lb. -				
	½ doz pit ſaw files, ſorted, at 4s per doz.				
	2 raſps, at 14d each - -				
	3 red chalk pencils, at 6d each - -				
J.	½ doz. bright gimblets, ſorted, at 18s per groſs				
	1 doz. common ditto, ſorted, at 9s *do.*				
	Delivered to Mrs Builder, *per* E. T.		1	0	11
	18th.				
	Mrs. *Lovemoney*, Dr.				
Tof 13 B F.	1 ſilver pencil-caſe - -		0	5	0
	1 neat ſteel inſtrument-caſe - -		0	7	6
			0	12	6
	Remember, that ſuch accompts as theſe are not to be journaliz'd.				
	20th				
	William Thorogood, Eſq; Dr.	4	2	12	6
	1 pair neat pocket piſtols, ſcrew barrels		0	8	0
	1 pair neat braſs candleſticks -		0	11	6
	1 pair ſteel ſnuffers and ſtand -		0	7	6
	1 pair pierc'd London gilt ſhoe buckles		0	1	0
	2 beaufet cork ſcrews, at 1s each -				
J.	1 neat barrel ditto - -		0	1	6
	2 fine London razors, at 2s 6d each -		4	9	0
	1 fine ditto penknife - -				
	21ſt				
	Mrs. *Lovemoney*, Dr.		0	1	6
Tof. 11 B F.	1 ſilver thimble - - -		0	6	0
	1 pair London gilt ſhoe buckles -		0	7	6
	22d				
	Mr. *John Friend*, Dr.	5	0	7	6
			0	6	0
J.	1 ſet fire ſhovel, tongs, and poker -				
	1 ſet ditto - - -				
	2 fenders, at 3s 9d each - -		1	1	0

Edinburgh, 22d *January*, 1777.

		l.	s.	d.
	Mr. *William Woodman*, Dr.			
	2 pair gilt ſleeve buttons, at 1s *per* pair	5		
	2 pair enamel'd ditto, at 4d ditto –			
	2 pair pinchbeck ſhoe buckles, 2s each			
	1 pair fine ſteel ſnuffers – –		0	2 3
	2 pair common ditto, 6d each –			
J.	*Note*, The ſcholar ſhould ſometimes write a bill of pareels of goods ſold.		0	9 11
J.	Received of *John Friend*, in full –	5	3	14 0
	Note, 1. You muſt here make, Caſh, Dr. To John Friend, received in full L. 3 14 0			
	2. For a copy of his accompt, and the receipt given him, ſee the *bill of exchange book*, F.			
J.	Received of *William Builder*, in full	5	1	11 8
	Note, Obſerve the inſtructions given in the laſt entry; and ſee a copy of his accompt, and the receipt given him, in the *bill of exchange book*, G.			
	Mr. *Edward Thomas*, Dr.			
To f. 11	1 twenty-four inch japan'd tea-tray -		1	4 0
B. F.	1 ten inch ditto waiter, - -		0	3 6
			1	7 6
	Mr. *John Simkins*, Dr.			
	3 plain iron candleſticks, ea. at 3s-4s *per* doz.	5		
	3 ſingle ball'd ditto, ea. at 4s 6d-5s 6d *do.*			
	3 double ditto, each at 11s-12s ditto			
	3 plain ſcrew'd, each at 10s-11s ditto			
	½ doz. common varniſh'd padlocks, 3s ditto			
	½ doz. ditto, at 4s ditto - -			
	1 doz. buffalo couteaux, each 7s-8s ditto			
	1 doz. common ſpring penknives -		0	4 6
J.	1 doz. beſt ditto - - -		0	5 6
			2	3 9

Edinburgh, 24th *January* 1777.

	Thomas Wickam, Esq; Dr.	Fol	l.	s.	d.
	4 best London razors, at 2s 6d each -	5			
	1 best camp cruet frame, silver tops -		2	16	0
J.	1 pair neat pocket pistols - -		2	2	0
			5	8	0
	Mrs. *Mary Kelly*, Dr.				
Tof. 11 B. F.	1 neat steel instrument-case -		0	5	0
	1 silver thimble - - -		0	1	6
			0	6	6
	Mr. *John Homer*, Dr.				
Tof. 11 B. F.	1 pair London gilt shoe buckles -		0	6	0
	Sold for ready money.				
	1 pair plated shoe buckles - -	6	0	3	3
	1 pair open work ditto - -		0	4	6
	1 one and a half inch auger - -		0	2	0
	1 pair plated spurs - -		0	7	0
Pr. c. 23	1 cwt. 1 qr. 16 lb. Siberia iron, at 18s 8d *per* cwt. - -				
	2 silver pencil cases, at 3s 6d each -				
	6 cedar pencils, at 2s *per* doz. -				
	1 dz. files, ea. 6 and 6½ in. at 2s & 2s 6d *do.*				
	8lb. rubbers, at 8½d. *per* lb. -				
	1 pair brass candlesticks - -		0	4	0
	2 twenty-six inch hand-saws completed, at 5s 9d each - - -				
	3 bright chest locks, at 1s ditto -				
	2 gunter's scales, at 2s ditto -				
	1 doz. sham buck knives and forks -		0	3	0
	1 ten inch best japann'd tea tray -		0	4	3
	1 eighteen inch ditto - -		0	14	0
	1 twenty-four inch ditto - -		1	6	0
J			6	10	8

Note, To journalize this, you must make
Cash - Dr.
To sundries - - L. 6 10 8

Edinburgh, 24th *January* 1777.

		Fol	L.	s.	d.
	Frederick King, Eſq; Dr.				
	1 ſet fire-ſhovel, tongs, and poker -	6	0	7	6
	2 neat plain fenders, at 4s each -				
J.	2 pair braſs candleſticks, at 6s *per* pair				
			1	7	6
	25th				
	Mr. *Edward Carpenter*, Dr.				
	½ doz. ✕ key'd box locks, at 4s *per* doz.	6			
	½ doz. bright ſtraight cupboard do. at 5s 6d				
	½ doz. ditto to cut, at 7s ditto -				
J.	3 bright cheſt locks, at 10s ditto -				
			0	10	9
	Mr. *Adam Lack*, Dr.				
Tof 11 B. F.	1 Beaufet cork ſcrew - -		0	1	0
	Mr. *Edward Thomas*, Dr.				
Tof. 11 B. F.	1 common cruet frame - -		0	7	6
	William Wynn, Eſq; Dr.				
	1 fine fowling-piece, ſilver mounted -	6	3	13	6
	2 fine London razors, at 2s 6d each -				
J.	1 neat caſe and ſtrap for ditto -		0	2	6
	Deliver'd, by order, to W. Dixon, Carrier, *per* E. Truſty.		4	1	0
	Mr. *Thomas Rider*, Dr.				
Tof. 11 B. F.	1 pair neat boot ſtraps - -		0	2	0
	1 pair boot buckles - - -		0	1	0
			0	3	0
J.	Paid freight of goods from London -	6	0	7	6

Note. Before I proceed any further, I will ſhew you how the following accompts are collected from the *Waſte-book*: but, previous thereto, I muſt tell you, that they are of ſo trifling a nature, as not to merit an accompt Dr. and Cr. in the Ledger; becauſe, firſt

firſt, they may probably be paid for in a few days: And, *ſecondly*, that a continuance of their cuſtom is extremely uncertain. And, in order to make you thoroughly underſtand the method of adjuſting *accompts like theſe*, I propoſe to balance and carry forward thoſe which remain unpaid, every fortnight, or month at longeſt. At the ſame time, you muſt remember to journalize and poſt your other tranſactions; one month being the longeſt time that merchants ſhould neglect this very material part of their concerns.

Begin, then, at the 1ſt of January in your Waſte-book, and journalize every entry in ſucceſſion, according to the directions given; and when you have ſo done, put the letter *J* in the margin, oppoſite to every accompt. When you come to the firſt of thoſe mark'd, B. F. in the margin, you are to carry *that*, and *all* of that *kind*, to the next blank folio herein appropriated for that purpoſe, *viz.* Fol. 11. at the top whereof, after having written the day of the month, write, *Accompts brought forward:* then, as Thomas Rider's is the firſt of theſe trifling accompts, and is found in fol. 5. you muſt ſay, Rider (Thomas) Dr.---From fol. 5.---L. 0:7:0, *(the particulars are not to be mentioned.* *Laſtly*, Return back to fol. 5 and write in the margin, oppoſite the very entry, *Carried to fol.* 11. B. F. and it will be finiſhed. Proceed in the ſame manner with the reſt of theſe entries: but note, when the ſame perſon has had goods twice, or oftener, you muſt not enter his name again, but place the folio figure from whence the entry was taken, and the amount of the goods under the other; remembering to inſert the reference in the margin, *i. e. carried to fol.* 11. as before.---If you collect all theſe *accompts* properly to this day, they will ſtand as follow:

Edinburgh, 27th *January*, 1777.

	ACCOMPTS BROUGHT FORWARD.		Fol	L.	s.	d.
Received 3d Feb	*Rider, Thomas,*	Dr. from	5	0	7	0
			10	0	3	0
To f. 19	*Young, Joſeph,*	Dr.	6	0	2	0
To f. 19	*Lack, Adam,*	Dr.	6	0	4	0
			10	0	1	0
Received 31. Jan.	*Lovemoney,* Mrs.	Dr.	7	0	12	6
			–	0	7	6
Received 31. Jan.	*Thomas, Edward,*	Dr.	8	1	7	6
			10	0	7	6
To f. 19	*Kelly, Mary,*	Dr.	9	0	6	6
To f. 19	*Homer, John,*	Dr.	9	0	6	0

Edinburgh 28th *January*, 1777.

		Fol	L.	s.	d.
	Mr. *John Underworth*, Dr.				
	3 ſteel watch chains, at 12s *per* doz. -	6			
A&D.	3 ditto, each at 18s-24s and 36s ditto -				
	1 Morocco pocket-book, ſilver lock -		0	10	6
J.	1 ditto, each at 12s-15s each				
			3	0	0
	29th				
	Mr. *Thomas Plumtree*, Dr.				
A&M.	3 Kentiſh hammers, ea. at 7s-8s and 9s *per* dz.	6			
—	2 pair bellows, each at 18s-21s-28s ditto				
	1 pair fine chamber ditto - -		0	3	3
	1 doz. braſs handles and plates -		0	3	6
J.	1 doz. ditto, each at 4s-5s-5s 6d *per* doz.				
			1	18	5
	Thomas Wickham, Eſq; Dr.				
J.	1 neat fowling-piece - - -	7	3	2	9
	Mr. *Ralph Gripe*, Dr.				
To f. 19 B. F.	1 neat ſteel watch chain - -		0	3	6
	Mr. *Thomas Keepwell*, Dr.				
To f. 19 B. F.	1 Kentiſh hammer - - -		0	1	0
	1 draught board - - - -		0	6	0
			0	7	0
J.	Receiv'd of Thomas Wickam, Eſq; in full	7	10	12	6

Note, 1. To journalize this, you muſt make
Caſh, Dr.
To Thomas Wickam, Eſq; received
in full, - - L. 10 : 12 : 6

2. For a copy of his accompt, and the receipt given him, ſee the *Bill of Exchange Book*, *I.*

31ſt

Sold for ready money.

	1 doz. ſtag knives and forks -	7	0	5	3
	Carried over		0	5	3

Edinburgh, 31ſt January, 1777.

	Sold for ready money.	Fol	L.	s.	d.
	Brought over	7	0	5	5
	1 two foot-rule		0	0	9
	1 paper ſnuff box		0	3	0
	1 one and a fourth inch auger		0	1	8
Pr C 23.	3 cwt. 3 qrs. 18 lb. iron, at 18s 8d *per* cwt.				
	2 ſilver pencil-caſes, at 2s 6d each				
	2 double prong'd raſps, at 20d each				
	1 ivory pocket book		0	3	0
	2 large lead pencils, at 1s each				
	1 pair boot ſtraps		0	2	0
	2 pair common ſciſſors, 9d *per* pair				
	1 frying-pan		0	2	0
	1 ſhort handled ditto		0	1	6
	2 double bolted padlocks, at 1s each				
	Sundries, Mrs. Lovemoney, in full		1	0	0
J.	*Ditto, Edward Thomas, in full*		1	15	0
			8	1	0

Note, 1. The above muſt be journaliz'd, by making

Caſh, Dr.
To ſundry accompts (or ſundries) L. 8 : 1 : 0

2. If you refer back to the *brought forward accompts*, you will find, that Mrs. Lovemoney and Edward Thomas are there debited ſeparately for 1l. and 1l. 15s. which ſums they have paid you this day; therefore, turn back to fol 11. and in the margin of their reſpective accompts, write, *Received 31ſt January.*

3. Before you either bring or carry forward *theſe* accompts, you muſt inſpect carefully thoſe entries in this book, under the title of, *Sold for ready money*, and credit thoſe perſons who may have paid you.

4. See the two aforeſaid accompts drawn out, and the receipts given them, in the *Bill of Exchange-book*, H and K.

Mrs. *Mary Kelly*. Dr.

To f. 19 B F.	1 paper ſnuff-box		0	1	6
	Paid poſtage of letters, and other petty charges	7	0	6	9
J.	Paid houſe-expences for this month		4	12	8
			4	19	5

Edinburgh, 31ſt *January*, 1777.

		Fol	*l.*	*s.*	*d.*
	Note, 1. This accompt muſt be journalized, by making Caſh, Cr. By ſundries L. 4 : 19 : 5. 2. See the Book of Houſe-Expences. 3. See note 3. Folio 1. of this book.				
	1ſt *February*, 1777.				
	Mr. *John Deal*, Dr.				
A&M	3 Banbury ſtock locks, each 8 inch. 9 inch. at 10s and 11s *per* doz.	7			
	3 ditto, 10 inch. 12 inch. at 15s-20s *do.*				
	½ doz. X ward cheſt locks, at 5s *do.*				
	½ doz bright ſtraight cupboard locks, at 6s *per* doz.				
	½ doz. ditto cut ditto, at 6s ditto				
	½ doz. varniſh'd padlocks, at 3s ditto				
A&D J.	½ doz. ditto each, 3s 6d-5s ditto				
	4 double bolted, at 10s ditto				
			1	11	7
	Mrs. *Gaudy*, Dr.				
	1 fine paper ſnuff box			0	4 6
Tof. 19 B F.	1 fine toothpick caſe			0	2 6
	½ doz. fine toothpicks, at 2s *per* doz.				
				0	8 0
	Mrs. *Mary Kelly*, Dr.				
Tof. 19 B. F.	1 pair fine London gilt ſleeve buttons			0	2 6
	Sold for ready money.				
	1 neat hand candleſtick, princes' metal	7		0	7 0
	1 pair ſteel ſnuffers			0	2 6
J.	1 ſteel fender			0	2 6
				0	13 0
	3d				
	Mr. *Richard Woodmonger*, Dr.				
	½ doz. black augers, each ½ inch and ⅝ inch, at 7s 6d and 8s 6d *per* doz.	7			
	Carried over			0	8 0

Edinburgh, 3d *February* 1777.

		Fol	L.	s.	d.
	Mr. *Richard Woodmonger*, Dr.				
	Brought over	7	0	8	0
	½ doz. do. ea. ¾ inch ⅞ inch, at 9s 6d–12s *do.*				
	1 doz. plane irons ſorted – –			0 4	6
	2 doz. gouges ſorted, at 5s *do.* –				
	1 doz. chiſels ſorted – –			0 6	6
	1 carpenters adz, 5½ lb. at 8½d. *per* lb.				
Pr.c.23	10 cwt. 2 qrs. 24 lb. Siberia iron, at 18s 8d *per* cwt. – – –				
	6 doz. ſorted files, 4½ inch, 17s *per* groſs				
A&D	6 doz. ditto, each 5, 5½, 6, 6½ inch. at 18s–20s–22s–24s ditto – –	8			
CMc.5.	37 lb. rubbers, at 8d *per* lb. –				
	3 doz. pit ſaw files, ſorted, 3s 4d *per* doz.				
	1 ſeven foot pit ſaw – –			1 10	0
J.	½ doz. hand ſaws, completed, 5s 3d each			19 10	2¾
J.	Received for ſundry articles, of Thomas Rider, in full – –	8	0	10	0

Note. 1. Make *Caſh*, Dr.
To ſundries, L. 0 : 10 : 0.

2. Refer to the *brought forward accompts*, and oppoſite Rider's name, write, *Receiv'd 3rd February.*

3. Refer to the *bill of exchange book*, L. for inſtructions to draw out the above accompt in particulars, from this book.

5th.

Mr. *William Vintner*, Dr.

	1 four doz. knife caſe, lacker'd furniture	8	0	19	0
	2 double doz. ſlight ſilver handled knives and forks, at 30s *per* doz. –			1 1	0
J.	1 doz. ditto, deſſerts – –			5 0	0

Mr. *Edward Honeſty*, Edinburgh, Dr.

	To caſh - - - -	8	100	00	
	Cr.				
	By a bill on Meſſrs. Cook and Downright, London, at 1 month – –			33 9	0

Edinburgh, 5th *February*, 1777.

		Fol.	L.	s.	d.
	Note, 1. Journalize the Caſh as before directed.				
	2. See a copy of the bill in the *bill of Exchange book*, *M.* which is entered in the proper columns in the *bill-book*.				
	3. The Author preſents his reſpectful compliments to the worthy ſchoolmaſters of Great Britain, who by approving of this work, may introduce it into their ſchools to teach from, and informs them, that they muſt give their ſcholars a copy of the above, and of all the Bills of Exchange which are ſuppoſed to be received in this courſe of book-keeping, before they be entered into the *Waſte-book*.				
	Mr. *Edward Evans*, London, Dr.				
	To a bill on Meſſrs. Cook and Downright		8	33	9
Pr. C21.	To diſcount at 2½ *per cent.* of 34l 6s 6d				
J.	To abatement – – –			0	0 4
				34	6 6
	Note, 1. Journalize the above as it ſtands, only put the ſurname firſt.				
	2. Edward Evans, in anſwer to your letter of the 3d *ult.* (ſee the *Letter-book*, fol. 3rd,) chuſes to allow you a diſcount of 2½ *per cent.* for ready money; in conſequence whereof, you ſend him the above bill, which you received from Edward Honeſty, after having indorſed it, and debit him for the amount of the diſcount at 2½ *per cent.* which, with an abatement of 4d. pays him in full.				
	3. Indite a letter proper to be ſent to Evans on the occaſion, and then refer to the *Letter-book*, fol. 6. where you will ſee a copy.				
	4. Indorſe the draught, (that is, write your name on the back of it), and fill up the blank column, *of whom*, *and when received*, in the *bill-book*.				
	Mr. *John Lackcoſh*, Dr.				
	1 neat copper urn – –			1	7 0
To f. 19 B F.	1 tea bell – –			0	1 6
	1 twenty-eight inch beſt japann'd tea tray			1	12 0
	1 ten inch waiter ditto – –			0	3 6
				3	4 0
	Mr. *William Truſtlove*, Dr.				
To f. 19 B F.	1 doz. ſham buck knives and forks –			0	3 3
	1 frying-pan – –			0	2 0
				0	5 3

Edinburgh, 5th *February*, 1777.

		Fol	L.	s.	d.
	Mrs. *Longhead*, Dr.				
To f. 19 B F.	1 neat tea bell - -			0	2 0
	1 neat ſteel inſtrument-caſe -			0	5 6
				0	7 6
	Mr. *Joſeph Fairdealer*, Dr.				
A&D	½ doz. paper ſnuff-boxes, each at 15s-18s and 22s *per* doz. - -	8			
	3 toothpick caſes, ea. at 15s and 22s *do.*	9			
—	2 pair plated ſpurs, each at 3s 6d-4s-4s 6d				
—	and 5s *per* pair - -				
	3 pair ſugar nippers, at 2s 6d ditto -				
—	1 pair ditto, each at 2s 9d and 3s 2d ditto				
—	3 ſteel inſtrument-caſes, each at 20s-22s 30s				
	and 36s *per* doz. - -				
—	2 ſilver pencil-caſes, each at 2s 6d-3s-3s 6d				
	and 4s 6d each - -				
J.	1 doz. black lead pencils, each at 1s 6d-2s				
	3s and 3s 6d *per* doz. - -			7	8 2
	Sold for ready money.				
PrC. 23	3 cwt. 1 qr. 22 lb. iron, at 18s 8d *per* cwt.	9			
	1 double dz. ſilver handled knives and forks			1	11 6
	½ double doz. ditto, deſſerts, 21s *per* doz.				
J.	2 beſt double worm gimblets, 3d each				
				5	6 10
	7th.				
	Mr. *William Builder*, Dr.				
	3 hundred 4d. nails, at 4d *per* hundred	9			
	2 hundred 6d. ditto, at 5d ditto -				
	2 hundred 8d. ditto, at 7d ditto -				
	1 hundred 10d. ditto, at 8½d ditto -				
	1 m. 2d. tacks - -				1 8
J.	2 m. 3d. ditto, at 2s 3d *per* m.				
				0	9 10½
	8th.				
	Thomas Dawſon, Eſq; Dr.				
	2 pair princes' metal pillar candleſticks, at	9			
	15s *per* pair - - -				
	1 hand ditto - - -			0	6 6
J.	1 pair fine ſteel ſnuffers and ſtand -			0	8 0
				2	4 6

Edinburgh, 8th *February* 1777.

			Fol	L	s.	d.
	Mrs. Gaudy,	Dr.				
To f. 19 B F.	1 ſilver thimble			0	1	6
	1 pair London gilt ſhoe buckles			0	6	0
				0	7	6
	Mr. *John Deal*,	Dr.				
	1 m. 4d. nails		9	0	3	6
	1 m. 6d. ditto			0	4	6
D.	½ m. 12d. ditto, at 8s 6d *per* m.					
—	¼ m. 20d. ditto, at 14s 6d ditto					
	¼ m. 24d. ditto, at 18s ditto					
J.				1	4	0

8th.

Note, 1. Preparation muſt now be made for bringing the ſmall accompts forward which remain undiſcharged, by leaving an intire folio for this purpoſe; at the top whereof, after having written the day of the month, *&c.* write,

Accompts brought forward.

2. Take a ſurvey of your *waſte-book* from the laſt *brought forward accompts*, fol. 11. to this folio, and diſcharge, if you have not already, as many of thoſe accompts as have been paid you, by writing in the margin, *Received*: (or *paid*) then bring the remainder forward ſingly and ſeparately, expreſſing the ſum-total only, the folios they are brought from, and inſert in the margin of each reſpective accompt the reference hereto.

3. *Laſtly*, Journalize every accompt in ſucceſſion, from fol. 11. (except thoſe marked, *B. F. in the margin*, which muſt be brought to this folio,) according to former directions, and they will ſtand as follow:

ACCOMPTS

Edinburgh, 10th *February*, 1777.

ACCOMPTS Brought Forward.

			Fol.	L.	s.	d.
Carried to f. 25. B F.	*Young, Joſeph,*	Dr. - from	11	0	2	0
Receiv'd 19th Feb.	*Lack, Adam,*	Dr. - - -	11	0	5	0
Receiv'd 14th Feb.	*Kelly, Mary,*	Dr. - -	11	0	6	6
			13	0	1	6
			14	0	1	0
Receiv'd 19th Feb.	*Homer, John,*	Dr. - -	11	0	6	0
		Brought back from	22	0	3	0
To f. 25	*Gripe, Ralph,*	Dr. - -	12	0	3	6
To f. 25	*Keepwell, Thomas,*	Dr. -	11	0	7	0
Receiv'd 14th Feb.	*Gaudy,* Mrs.	Dr. -	14	0	8	0
			18	0	7	6
Receiv'd 15th Feb.	*Lackcaſh, John,*	Dr. -	16	3	4	0
To f. 25	*Truſtlove, William,*	Dr. -	16	0	5	3
To f. 25	*Longhead,* Mrs.	Dr. -	17	0	7	6

Edinburgh, 10th *February*, 1777.

		Fol.	L.	s.	d.
	Mr. *Thomas Architect*, Dr.				
	1 dz beſt bright gimblets, at 24s *per* groſs	9			
	1 doz. beſt black ſingle worm ditto, -		0	1	6
	1 doz. common ditto, - -		0	1	0
	2 large lead pencils, at 1s each -				
	3 red chalk ditto, at 4s *per* doz. -				
	2 beſt 26 in. hand ſaws, at 5s 6d each				
	3 ſeven inch two bolt iron rim locks, braſs knobs, at 4s 6d ditto - -	10			
	3 ten inch ditto, at 10s 6d ditto -				
	2 groſs ſorted wood ſcrews, 2s 6d *per* groſs				
	4 m. 2d. tacks, at 20d *per* m. -				
	4 m. 3d. ditto, at 2s 3d ditto -				
	2 m. 4d. nails, at 3s 6d ditto -				
J.	1 m. 8d. ditto - -		0	6	6
			4	17	8
	11th.				
	Mr. *William Builder*, Dr.				
	3 ſix-in. Banbury ſtock locks, at 8s *per* doz.	10			
	3 eight inch ditto, at 10s ditto -				
	2 Kentiſh hammers, at 10s 6d ditto -				
	2 ditto each, 12s–14s-16 ditto -				
	1 doz. braſs hat pins - -		0	1	4
	1 doz ditto, each 20d and 2s 6d ditto				
J.	2 neat iron fenders, at 4s each –		1	6	9
	12th.				
	Received from Mr. Edward Honeſty, an indorſement on Meſſrs. Short and Ready, London, value – –	10	40	0	0
J.					
	Note. After your have journalized the above, you muſt enter the draught into your Bill-Book, from the copy of it which is in the Bill of Exchange Book, at *N*.				
	Mr. *William Amos*, London, Dr.				
J.	To a draught on Meſſrs. Short and Ready, London – – –	10	40	0	
Pr.c. 24	To diſcount 5 *per cent.* for prompt payment,				
	Note, The directions given at folio 16, under Edward Evans' entry, are applicable to the above, and muſt be obſerved in every particular. (See the Letter-Book, fol. 6.)		42	0	0
	14th.				
J.	Received of John Deal, on accompt -	10	2	2	9
	See a receipt proper to be given to Mr. Deal, in the Bill of Exchange Book, *Q*.				

Edinburgh, 14th *February*, 1777.

		Fol	L.	s.	d.
	Sold for ready money.				
	2 ſhort handled frying-pans, 1s 8d each				
	1 beaufet cork ſcrew – –	10	0	1	0
	2 barrel ditto, at 6d each –				
	1 ſet fire ſhovel, tongs, and poker –		0	3	9
	1 fender – –		0	4	0
	1 tea bell – –		0	2	0
	1 ſet ſilver handled knives and forks –		1	11	6
	6 pair ditto, deſſerts, at 21d *per* pair –				
	1 three doz. knife caſe, beſt furniture		1	2	0
	1 beſt buckling comb -		0	0	4
	1 pair plated ſpurs – –		0	7	0
BF f.19	*Sundries Mrs. Kelly in full* - -		0	9	0
BF f.19	*Ditto Mrs. Gaudy ditto* – –		0	15	6
			5	10	11
J.	*Note* 1. When you journalize, remember to credit Meſdames *Kelly* and *Gaudy's* accompts in the *brought forward accompts*.				
	2. See Mrs. Kelly's accompt, and receipts given to her and Mrs Gaudy, in the *bill of exchange book*, *P* and *Q*: alſo the method of aſcertaining the particulars from the waſte-book.				
	Mr. *Ralph Gripe*, Dr.				
To f.25 B. F.	1 ſilver pencil-caſe - -	13	0	3	0
	2 cedar pencils, at 2d each –		0	0	4
			0	3	4
	Mr. *Edward Carpenter*, Dr.				
	2 doz. ſingle worm bright box head gimblets, at 18s *per* groſs – –	10			
	2 doz. common black ditto, at 9s ditto				
	1 m. 24d nails – – –		0	17	6
	1 m. 20d ditto – – –		0	14	6
	2 m. 12d ditto, at 8s 6d *per* m. –				
	2 m. 10d ditto, at 7s 6d ditto –				
	3 m. 8d ditto, at 6s 6d ditto –				
	4 m. 6d ditto, at 4s 6d ditto - -				
J.	6 m. 4d ditto, at 3s 6d ditto –				
	15th		6	7	0
J.	Received for ſundry articles of John Lackcaſh, in full - - -	11	3	4	0
	Note. Purſue the directions given at folio 15. under Thomas Rider's entry: and ſee the *bill of exchange book*, *R*.				

Edinburgh, 15th *February*, 1777.

		Fol	L.	s.	d.
	Mr. *William Truſtlove*, Dr.				
To f. 25 B. F.	1 neat ſteel watch chain - -			0	2 6
	17th				
J.	Received of Edward Carpenter on accompt	11	3	0	●
	Note.. See a copy of a receipt given him in the *bill of exchange book*, S.				
	Mr. *William Thompſon*, Sheffield, Dr.				
	To my draught on Meſſrs Paywell and Co. London - - -	11	9	6	6
Pr. f. 24. J.	To diſcount of 10l. 2s. at 7½ *per cent.*				
	To abatement - -		0	0	4½
	In full, L.		10	2	0
	Note, 1. William Thompſon's offer to you of 7½l. *per cent.* diſcount for ready money, is the cauſe of your paying him ſo ſoon: you muſt therefore draw out the above *bill of exchange*, copy it in your *bill-book*, and ſend it to him *per* the poſt. 2. Refer to the *bill of exchange book*, T, for a copy of the bill: and to the *Letter-book*, fol. 6. for a copy of a letter.				
	Mr. *William Vintner*, Dr.				
	2 pair princes' metal candleſticks, at 14s *per* pair	11			
	1 pair fine ſteel ſnuffers -		0	3	0
J.	1 ſtand for ditto - -		0	4	6
			1	15	6
	18th.				
	Mr. *Thomas Keepwell*, Dr.				
To f. 25 B. F.	1 tea bell - - -		0	1	6
	Mrs. *Finikin*, Dr.				
	1 pair fine ſciſſors - -				
To f. 25 B. F.	1 neat Morocco pocket-book -		0	4	0
	1 ſilver thimble - - -		0	10	6
			0	1	6
	19th		0	16	0
Carried back to fol. 19. B. F.	Mr. *John Homer*, Dr.				
	1 pair neats' leather bellows -		0	3	0
	Mr. *Thomas Architect*, Dr.				
	2 Kentiſh hammers, ea. at 12s. 14s. 16s *per* dz.	11			
J.	10 m. 2d tacks, at 20d *per* m. -		1	3	8

Edinburgh, 19th *February*, 1777.

		Fol	L.	s.	d.
	Mr. *William Truſtlove*, Dr.				
To f.25 B. F.	1 neat copper urn - -		2	2	0
	Sold for ready money.				
	2 pair braſs candleſticks, at 4s *per* pair	11			
	1 tea bell - - -		c	2	0
	1 iron fender - - -		c	4	0
	2 pair enamel'd ſleeve buttons, at 3d *per* pair				
	2 pair ſteel ſhoe buckles, at 1s 6d ditto				
	1 pair pinchbeck ditto - -		c	2	0
BF.f 19	*Sundries to John Homer, in full* -		c	9	0
BF.f.19	*Ditto to Adam Lack, ditto* -		0	5	0
	2 gimblets, at 2d each - -				
Pr.c. 23 J.	5 cwt. 0 qr. 27 lb. iron, at 18s 8d *per* cwt.				
			6	11	8
	Note, 1. I cannot too much caution the ſcholar to remember, when he is journalizing this accompt, to refer to the *brought forward accompts*, fol. 19. and credit Homer and Lack. 2. See the receipts given them in the *bill of exchange book*, *U* and *V*.				
	Mrs. *Paylittle*, Dr.				
To f.25 B. F.	1 neat Morocco pocket-book, ſilver lock		0	18	0
	Mr *Edward Ruſtnail*, Dr.				
	To caſh paid his draught on me, to John Dealer	11	40	15	6
J.	To abatement - -		0	0	4
			40	15	10
	Note, 1. Immediately after receiving his letter, adviſing, that he had drawn on you for 40l. 15s. 6d. at 1 month, payable to Mr Thomas Peartree, or order, you ſhould enter it in your *bill book*, to which I refer you. 2. If the bill had been preſented to you for *acceptance* before due, you muſt have accepted it, by writing your name on the face of it, as you may ſee in the *bill of exchange book*, at *W*.				
	21ſt.				
J.	Received of Edward Honeſty on accompt	11	25	0	0
	22d.				
	John Blackſmith, Dr.				
Pr.c.23	1 cwt. 1 qr. 18 lb. iron, at 19s *per* cwt.	11			
	2 farriers raſps, at 16s *per* doz. -				
J.	2 twelve and a half in. 2 prong'd do. 18s do.				
			1	12	5½

Edinburgh, 22d *February*, 1777.

		Fol	L.	s.	d.
	William Merry, Dr.				
To f. 25 B. F.	1 two doz. common knife-case –			0	4 6
	2 doz. ivory Chineſe table knives and forks, at 16s *per* doz. –				
				1 16	6
	Jonas Lovecredit, Dr.				
To f. 25 B. F.	2 ſix inch japann'd waiters, at 18d each				
	24th				
J.	Mr. *Thomas Underwork*, Dr.				
	To caſh paid his draught on me to William Quick – – –	12	25	11	0
	Note. 1. The ſame directions given the 21ſt inſt. will do for this entry.				
	2. See a copy of the bill in the *bill of exchange book*, X				
	3. See it entered in the *bill-book*.				
J.	Paid carriage of goods, *&c.* -	12	0	18	0
	Mr. *John Simkins*, Dr.				
	3 nine in. Banbury ſtock locks, at 11s *per* dz.	12			
	3 ten inch ditto, at 14s ditto – –				
	3 eleven inch ditto, at 17s ditto -				
	2 twelve inch ditto, at 22s ditto -				
	4 foot rules, at 4s ditto - –				
	4 two feet ditto, at 8s ditto -				
	2 gunter's ſcales, at 22d each –				
	1 ſix inch japann'd waiter - -			0 1	4
	2 eight inch ditto, at 30d ditto -				
	1 ten inch ditto - - -			0 3	3
	1 twenty-four inch ditto tea-tray -			1 4	0
				2 15	5
	25th.				
J.	Lent John Goodwill *per* promiſſory note, payable to myſelf, or order, at 1 month	12	50	0	0
	Note. 1. To journalize the above, you muſt make				
J.	*Goodwill, John*, Dr.				
	To caſh lent him *per* promiſſory note, for one month - - L. 50 0 0				
	2. See a copy of this Note in the *Bill of Exchange-Book*, at Y, which is alſo copied in the *Bill-book*.				
	3. The directions given you Folio 19. muſt be attended to, in the ſame order and tenor as they ſtand, for bringing forward your ſmall accompts in this book; which, when done, will ſtand as follow;				

Edinburgh, 24th *February*, 1777.

ACCOMPTS Brought Forward.

			Fol'	L.	s.	d.
Receivd 7.Mar.	*Young, Joseph,*	Dr. - from	19	0	2	6
		Brought back from	26	0	10	6
Carried to f. 38 B.F.	*Gripe, Ralph,*	Dr. - -	19	0	3	6
			21	0	3	4
To f. 38	*Keepwell, Thomas,*	Dr. - -	19	0	7	0
			22	0	1	6
Receiv'd 25.Feb	*Truſtlove, William,*	Dr. - -	19	0	5	3
			22	0	2	6
			23	2	2	0
To f. 38	*Longhead,* Mrs.	Dr. - -	19	0	7	6
To f. 38	*Finikin,* Mrs.	Dr. - -	22	0	16	0
Receivd 20 Mar	*Paylittle,* Mrs.	Dr. - -	23	0	18	9
To f. 38	*Merry, William,*	Dr. - -	24	1	16	6
		Cr. from fol. 27. L. 1 : 1 : 0.				
Recevd 5.Mar.	*Lovecredit, Jonas,*	Dr. - -	24	0	3	0

Edinburgh, 25th *February*, 1777.

		Fol	L.	s.	d.
	Mr. *Richard Woodmonger*, Dr.				
A&D.	½ doz. plain iron candleſticks, each 3s 6d-4s-				
	5s-5s 6d and 6s *per* doz -	12			
——	½ doz. braſs ball'd *do.* 5s 6d-6s 6d-7s ditto				
	½ doz. ſecret thumb locks, at 10s ditto				
	3 ſecret letter locks, at 18s ditto -				
	½ doz. braſs dog-collar locks, at 21d ditto				
J.	½ doz. ditto, each at 2s 3d-3s-4s ditto -				
			1	16	6
	Mr. *Joſeph Fairdealer*, Dr.				
	½ doz. beaufet cork ſcrews, 9s *per* doz.	12			
	½ doz. barrel *do.* ea. 6s-7s-8s 6d & 10s 6d *do.*				
	½ doz. London razors, at 26s ditto -				
	½ doz. ditto penknives, at 18s ditto- -				
	1 etui Morocco pocket-book - -		0	10	6
J.	1 ditto, each 12s-14s-17s-19s ditto -				
			5	15	0
BF.f.25	Received for ſundries of William Truſtlove	12	2	6	6
J.	Abatement - - -		0	0	3
			2	9	9

Note, 1. You muſt make
Caſh - - Dr.
To ſundries - - L. 2 : 9 : 6.
2. The abatement only balances the accompt.
3. See the accompt drawn out, and a receipt given to him, in the *bill of exchange book*, Z.

To f.38 B. F.	Mr. *Ralph Gripe*, Dr.				
	1 pair boot ſtraps - -		0	1	6
	1 pair plated ſpurs - - -		0	5	0
			0	6	6
	26th.				
	Thomas Dawſon, Eſq; Dr.				
	1 pair horſe piſtols - -	13	2	4	0
	1 pair neat ſcrew barrel pocket ditto -		2	12	6
	1 neat ſilver mounted fowling-piece -		3	13	6
J	1 pair neat ſpurs, with ſilver chains -		1	6	0
			9	16	0
Carri'd back to fol. 25. B. F.	Mr. *Joſeph Young*, Dr.				
	1 two doz. common fiſh ſkin paper caſe		0	10	6
To f.38 B. F.	Mrs. *Longhead*, Dr.				
	1 four doz. knife caſe, poliſh'd furniture		1	1	0

Edinburgh 26th *February*, 1777.

	Mr. *Edward Honeſty*, Dr.	Fol	L.	s.	d.
J.	To Caſh – – – –	13	10	10	0
	Miſs *Puny*, Dr.				
To f. 38 B. F.	1 neat tortoiſeſhell comb and caſe –		0	2	0
	1 pole comb – – –		0	2	0
			0	4	0
	28th.				
	Mr. *John Deal*, Dr.				
	1 doz. braſs handles, each, 3s–4s 6d–5s and 6s *per* doz. – – –	13			
A&D	½ doz. hat pins, each 1s 4d–2s–2s 8d ditto				
	2 Kentiſh hammers, at 14d each –				
—	½ doz. T. hinges, each 4s 6d–6s *per* doz.				
—	3 pair inſide cheſt ditto, each 8s–9s ditto				
—	6 pair ditto, each 10s–13s ditto –				
—	1 ½ groſs wood ſcrews, ſorted, 2s 6d groſs				
J.	1 twenty-ſix inch beſt hand ſaw –		0	5	6
			2	14	1
	Sold for ready money.				
	1 pair plated ſhoe buckles – –	13	0	4	6
	1 pair ditto pierc'd – –		0	5	0
	1 pair plated ſpurs – – –		0	4	0
	2 one and ¼th in. black augers, at 20d each				
	2 one and a half inch ditto, at 2s ditto				
	½ doz. common ſorted gimblets, 12d *per* doz				
	1 pair horſe piſtols – – –		1	16	0
	2 ten inch farriers' raſps, 12s *per* doz.				
	2 eleven inch ditto, 14s ditto –				
	2 ſilver thimbles, 18d each – –				
	3 pair gilt ſleeve buttons, 1s *per* pair –				
J.	8 pair enamel'd ditto, 3d ditto –				
			3	9	8
	Miſs *Downright*, Dr.				
To f. 38 B. F.	1 neat etui pocket-book, ſilver lock –		1	2	0
J.	Paid freight and carriage of goods –	13	0	18	4
J.	Paid houſe-expences for this month –	13	6	1	2
	2d *March* 1777.				
BFf. 25 J.	Receiv'd for ſundries, of William Merry on accompt – – –	13	1	1	0

Edinburgh, 2nd *March*, 1777.

Note, 1. When the laſt accompt is journalized, you muſt immediately turn back to the laſt *brought forward accompts*, at fol. 25. and underneath William Merry's write, "Cr. from fol. 27. L.1: 1:0." placing the money in an inner column; whereby you have Dr. and Cr. as exact as, and in a more conciſe manner than, in the Ledger.
2. See a receipt given to him, in the *bill of exchange book*, at *A a*.

		Fol	L.	s.	d.
	Mr. *John Blackſmith*, Dr.				
Pr.c. 23	5 cwt. 3 qrs. 4 lb. iron, at 19s *per* cwt,	13			
J.	3d.				
	Mr. *John Underworth*, Dr.				
	2 pair plated ſhoe buckles, 2s 9d *per* pair	13			
A&M.	2 pair ditto, each 3s–3s 3d–3s 6d ditto				
—	2 pair ditto, pierc'd, each 3s 9d–4s ditto				
	3 paper ſnuff-boxes, 2s 4d each –	14			
—	3 ditto, each 2s 10d–3s 6d ditto –				
—	4 ditto, each 1s 10d–1s 6d–1s ditto –				
	2 toothpick caſes, 1s 4d ditto –				
J.	1 ditto – – – –		0	1	10
			4	8	4
	4th.				
	Mr. *Thomas Plumtree*, Dr.				
	1 doz. ſorted plane irons – –	14	0	4	6
	½ doz. ditto gouges, at 5s *per* doz. –				
	½ doz. ditto chiſels, at 6s ditto –				
	1 carpenter's adz – – –		0	4	0
	2 ¾ inch augers, at 10s each –				
J.	2 ⅞ inch ditto, at 12s ditto – –				
			0	17	8
	5th.				
	William Wynn, Eſq; Dr.				
	2 double doz. ſtrong ſilver handled knives and forks, at 2l 12s 6d *per* doz. –	14			
	1 double doz. ditto, deſſerts –		1	14	0
J.	1 beſt knife-caſe, ſilver'd furniture –		1	2	0
			8	1	0
J.	Receiv'd of John Blackſmith, on accompt	14	3	3	0
	Note, See the copy of a receipt given to him in the *bill of exchange book*, *B b*.				
	Sold for ready money.				
BF f.25	*Sundries to Jonas Lovecredit, in full* –	14	0	3	0
	1 pair fine womens ſciſſors –		0	4	0
	Carried over		0	7	0

Edinburgh, 5th *March*, 1777.

		Fol	L.	s.	d.
	Sold for ready money.				
	Brought over		0	7	0
	1 pair fine women's ſciſſors –	14	0	6	6
	2 ſteel watch chains, at 3s 6d each –				
	2 razor-caſes and ſtraps, at 2s 6d ditto				
	4 beſt London razors, at 2s 6d ditto				
	2 ditto penknives, at 2s ditto –				
	4 frying-pans, at 2s 2d ditto – –				
	1 cruet frame, ivory tops – –		0	8	6
	2 twelve inch Banbury ſtock locks, 2s ditto				
	1 doz. buck table knives and forks –		0	4	6
	2 doz. ſham ditto, 2s 8d *per* doz. –				
J.	1 gunter's ſcale – –		0	2	0
			3	1	6
	7th.				
	Frederick King, Eſq; Dr.				
	1 twenty-four inch beſt japann'd tea tray	14	1	6	0
	2 twelve inch ditto waiters, 4s 6d each				
	2 ſix inch beſt japann'd waiters, 2s each				
	1 neat copper urn – –		2	8	0
	1 neat poliſh'd ſnuffer ſtand – –		0	7	0
J.	1 pair ſnuffers – – –		0	3	6
			4	17	6
	Miſs *Puny*, Dr.				
Tof. 38 B. F.	1 pair fine ſteel ſhoe buckles –		0	2	6
Tof. 25 B. F. J.	Receiv'd for ſundries of Joſeph Young, in full – – –	14	0	12	0
	Note, 1. When money is received from any perſon debited in the *brought forward accompts*, we always write, "Received for ſundries of," &c 2. See a copy of a receipt given to J. Young in the *bill of exchange book*, *E e*.				
J.	Receiv'd of Richard Woodmonger on accompt	14	10	10	0
	Note, The ſcholar ſhould always draw a receipt proper to be given in receiving money: Afterwards I refer him to to the *bill of exchange book*, *F f*, for a copy.				
	Captain *Ingleſtone*, Dr.				
	1 twenty inch beſt japann'd tea tray –	15	0	16	0
	2 eleven inch beſt ditto waiters, 4s 6d each				
	Carried over		1	5	0

Edinburgh, 7th *March*, 1777.

		Fol	L.	s.	d.
	Captain *Ingleſtone*, Dr.				
	Brought over		1	5	0
	1 ſix inch beſt japann'd waiter –	15	0	2	0
	2 double doz. ſtrong ſilver handled knives and forks, at 2l 12s 6d *per* doz. –				
	1 double doz. ditto deſſerts – –		1	14	0
J.	1 beſt knife-caſe, ſilver'd furniture –		1	2	0
	9th.		9	8	0
	Mr. *Edward Ninny*, Dr.				
	1 eight inch common japann'd waiter -	15	0	2	6
	3 eight inch beſt ditto, at 2s 10d each				
	2 eleven inch common ditto, 3s 6d ditto				
	2 twelve inch ditto, 3s 9d ditto – –				
	1 twenty inch beſt tea tray – –		0	14	6
	2 twenty inch common ditto, 12s 6d ditto				
A&D	6 pair common ſciſſors, each 8s–10s *per* doz.				
—	3 ſteel watch chains, ea 10s-16s-24s-36s *do.*				
J.	½ doz. razor-caſes and ſtraps, 24s ditto				
			5	7	6
	10th.				
	Mr. *William Builder*, Dr.				
	6 m. 2 d. tacks, at 20d *per* m. – –	15			
	6 m. 3d. ditto, at 2s 3d *do.* –				
	1 m. 24d nails – – –		0	17	6
	1 m. 20d ditto - – –		0	14	6
	2 m 12d ditto, at 8s 6d ditto -				
	2 m. 10d nails, at 7s 6d ditto –				
D.	6 eleven in. Banbury ſtock locks, 17s *per* dz.				
J.					
			4	16	0
	11th.				
	Mr. *William Merry*, Dr.				
To f. 38 B. F.	1 ſix inch two bolt braſs knob lock -		0	3	6
	12th.				
	Mr. *George Cliver*, Dr.				
	3 cards gilt ſleeve buttons, 5s *per* card –	15			
	8 cards enamel'd ditto, at 2s 6d ditto -				
	1 ſet fire ſhovel, tongs and poker –		0	3	6
A&M	2 ſets ditto, ea. 4s 4d and 3s 9d *per* ſet				
	Carried over		2	14	8

Edinburgh, 12th March, 1777.

Mr. *George Oliver*, Dr. | Fol | L. | s. | d.

	Brought over		2	14	8
1	set fire shovel tongs and poker – –	15	0	5	3
2	ivory memorandum-books, at 2s each –				
—	2 ditto, each 2s 6d–3s–3s 6d–4s 6d ditto				
J.			4	10	11

Mr. *Edward Quickpay*, Dr.

2	doz. crambo combs, at 11s *per* gross –	15			
2	doz. ditto, each 14s 17s ditto –	16			
1	doz. tupee ditto, 22s ditto – –				
1	doz buckling ditto – –		0	3	0
3	paper snuff boxes, 3s each – –				
2	ditto, 3s 8d ditto – –				
1	ditto – – –		0	1	3
2	ditto, 1s 6d ditto – –				
2	ditto, at 2s each – – –				
4	tortoise-shell toothpicks, at 2s *per* doz.				
J.	1 pair sugar nippers – –		0	3	0
			2	0	1

Mrs. *Wimble*, Dr.

Tof. 38 B. F.	1 silver thimble – –		0	1	6

Sold for ready money.

Prc. 23	4 cwt. 0 qr. 12 lb. iron, 18s 8d *per* cwt.	16			
3	one inch black augers, at 16s *per* doz.				
3	1¼ inch ditto, at 20s ditto – –				
3	1½ inch ditto, at 24s ditto – –				
½	doz. plane irons, forged, at 4s 6d ditto				
J. ½	doz. gouges, at 5s ditto – – –				
			4	16	5

14th.

Mr. *Edward Yelloly*, Dr.

3	iron candlesticks, at 3s *per* doz. –	16			
A&D 3	ditto, each 3s 6d–4s 6d–5s–5s 6d ditto				
— 3	brass ball'd ditto, each 4s 6d–5s 6d ditto				
½	doz. secret thumb locks, at 9s ditto				
⅓	letter locks, at 16s ditto				
6	brass dog-collar locks, at 2s 4d ditto				
— 6	ditto, each 2s 10d. 3s 6d ditto				
J.			1	0	8½

Edinburgh, 14th *March*, 1777.

		Fol	L.	s.	d.
	Miſs *Downright*, Dr.				
To f. 38 B. F.	1 common cruet frame – –			0	8 6
	Sold for ready money.				
Pr. c. 23 J.	2 cwt. 3 qrs. 17 lb. iron, 18s 8d *per* cwt.	16	2	14	2
	Mr. *Joſeph Yeomans*, Ironmonger, Dr.				
	½ doz. five barr'd tinn'd curry-combs, at 7s 6d *per* doz. – –	16			
	½ doz. ſix barr'd ditto, at 8s 6d ditto –				
	½ doz round iron ditto, at 3s 9d ditto				
	⅓ bruſhes, at 10s ditto – –				
	9 m. 2d. tacks, at 18½d *per* m. –				
J.	8 m 3d. ditto, at 2s 1½d. ditto –				
	10¾ m. 4d. nails, at 3s 4d ditto –				
	7 m. 6d. ditto, at 4s 4d ditto –				
			5	9	5
	Mrs. *Finikin*, Dr.				
To f. 38 B F.	1 pair chamber bellows –			0	3 6
	15th.				
	Sold for ready money.				
	1 pair neats' leather bellows – –	16	0	2	0
	1 pair boot ſtraps – –		0	1	8
	1 pair London ſciſſors – –		0	2	0
	2 ſhort handled frying-pans, at 2s each –				
	½ doz. bright cheſt locks, at 10s *per* doz.				
J.	2 cwt. 0 qr. 6 lb. iron, at 18s 8d *per* cwt.				
			2	13	0
	Mr. *John Friend*, Dr.				
J.	2 pair princes' metal pillar candleſticks, at 18s *per* pair – –	17			
	16th.				
	Mr. *John Deal*, Dr				
	1 ſix inch two bolt braſs knob lock –	17	0	3	3
	2 eight inch ditto, 5s 9d each –				
J.	2 nine inch ditto, 8s 6d ditto –				
			1	11	9

Ed^r. ..rgh, 16th *March*, 1777.

		Fol	L.	s.	d.
	Mr *William Builder*, Dr.				
	½ doz. inside chest hinges, at 8s *per* doz.	17			
A&M	½ doz. ditto, each 9s-10s-13s ditto –				
	1 doz. brass handles and plates –		0	4	0
	1 doz. ditto, each 4s 6d–5s and 6s ditto				
—	½ doz. cut cupboard locks, each 6s–7s 6d *do.*				
—	½ doz. bright chest ditto, each 12s-14s ditto				
J.			2	19	3
	Sold for ready money.				
	3 iron candlesticks, at 6s *per* doz. –	17			
	2 beaufet cork screws, 1s each - -				
	½ doz. London razors, 2s 6d ditto -				
	3 m. 2d. tacks, at 20d. *per* m. - -				
	3 m. 3d ditto, at 2s 3d ditto -				
	2 m. 4d. nails, at 3s 6d ditto - -				
J.	2 m. 6d ditto, at 4s 6d ditto - -				
			2	6	3
	18th				
	Mrs. *Longhead*, Dr.				
To f. 38 B F.	1 draught board - - -		0	7	0
	Mr. *Thomas Rider*, Dr.				
To f. 38 B F.	2 pair brass candlesticks, 4s *per* pair –				
	Sold for ready money.				
	2 best hand saws, completed, at 6s each	17			
	1 tea bell - - -		0	1	6
	2 pair brass candlesticks, at 5s *per* pair				
	2 steel instrument-cases, at 1s 6d each				
Pr. C 23. J.	3 cwt. 3 qrs. 18 lb. iron, 18s 8d *per* cwt.				
			4	19	6
	19th.				
	Mr. *Thomas Architect*, Dr.	17			
	10 m. 2d. tacks, at 20d *per* m. –				
	10 m. 3d. ditto, at 2s 3d ditto –				
	4 m. 8d. nails, at 6s 6d ditto –				
	Carried over		3	5	2

Edinburgh 19th *March*, 1777.

		Fol	L.	s.	d.
	Mr. *Thomas Architect*, Dr.				
	Brought over		3	5	2
	3 m. 10d nails, at 7s 6d ditto –	17			
	2 m. 12d ditto, at 8s 6d ditto –				
	1 m. 24d ditto - -		0	17	6
	3 pair inside cheſt hinges, at 8s *per* doz.				
J.	3 pair ditto, at 9s ditto - -				
			6	0	5
	Mr. *Edward Carpenter*, Dr.				
	1 doz. bright cheſt locks –		0	10	0
	1 doz. ditto – –	17	0	8	6
	1 doz. X key'd box locks – –		0	4	0
	1 doz. X ward ditto - -		0	5	0
	1 dz. braſs handles, ea. 4s-4s 6d-5s 6d *per* dz.				
J.	1 doz. hat pins, each 1s 6d-2s-2s 6d ditto				
			2	13	0
	20th.				
B Ff.25 J.	Received *for ſundries* of Mrs. Paylittle, in full.	17	0	18	0
	Note, See a copy of a receipt given by E. Truſty, W. P's ſervant, in the Bill of Exchange Book, *Gg*.				
	Mr. *Joſeph Fairdealer*, Dr.				
	6 pair common ſciſſors, at 8s *per* doz.	17			
	6 pair ditto, at 11s. ditto - -				
	6 pair London ditto, at 18s ditto -				
J.	6 ſteel watch chains, ea. 11s-15s-24s-33s *do.*				
			3	0	0
	21ſt				
	Mr. *Thomas Merchant*, Dr.				
To f.38 B F.	1 neat Morocco pocket-book -		1	7	0
	Sold for ready money.				
J.	8 cwt. 1 qr. 27 lb. iron, 18s 8d *per* cwt.	17			
	23d.				
J.	Received from Edward Honeſty, a draught on Meſſrs. Hinton and Co. *London*.	17	50	0	0

——*Edinburgh*, 23d *March*, 1777.——

		Fol	L.	s.	d.
	Note, When the laſt entry ſhall be journalized, you muſt enter the draught in the Bill Book; a copy whereof may be ſeen in the Bill of Exchange Book, at *H h*.				
	Thomas Wickham, Eſq; Dr.				
	1 cruet frame, with ſilver tops -	17	1	12	0
	2 double doz. ſtrong ſilver handled knives and forks, at 2l 12s 6d *per* doz. - -				
	1 ditto, deſſerts - -		1	14	0
J.	2 beſt 4 doz. knife caſes, 22s each -				
			10	15	0
	——24th.——				
	Mr. *Humphry Everet*, Dr.				
J.	To m. draught on Meſſrs. Paywell and Co. *London*	18	140	7	0
	Note, Draw out the Bill of Exchange on your Bankers, enter it in the Bill Book, write a letter to Everet, and journalize it as before directed: copies of which may be ſeen, by referring to the proper books.				
	Frederick King, Eſq; Dr.				
J.	1 neat Morocco pocket-book - -	18	1	2	0
	Sold for ready money.				
	3 pair black ſhoe buckles, at 14d *per* pair	18			
	2 pair ditto knees, at 8d ditto -				
	1 tortoiſeſhell comb and caſe - -		0	1	6
	1 pole comb - - -		0	2	0
J.	1 pair plated buckles, ea. 3s 6d–3s 9d–4s 3d				
			0	19	10
	——25th.——				
	Mr *Abel Longſide*, Dr.				
	To a draught on Meſſrs. Hinton and Co. London - - -	18	50	0	0
J.	To diſcount of ditto at 5 l. *per cent.* for prompt payment - - -		2	10	0
			52	10	0

Edinburgh, 25th *March*, 1777.

		Fol	L.	s.	d.
	Note, The above bill was received from Edward Honeſty, and the ſcholar has now to indorſe it, before he ſend it to Abel Longſide. See a copy of a letter to him in the Letter Book, fol. 7.				
J.	Receiv'd of Mr. John Goodwill, in full, for his promiſſory note - -		18	5	0 0
	Note, See the bill of exchange-book, *K k*.				
	Mr. *Thomas Keepwell*, Dr.				
To f. 38 B F.	1 neat copper urn - -				2 0
	Sold for ready money.				
Pr C 23	14 cwt. 2 qr. iron, 18s. 8d *per* cwt.		18		
	2 pair braſs candleſticks, at 8s *per* pair				
	2 tortoiſeſhell combs in caſes, 2s 2d each				
	1 pole ditto - - -			0	2 0
	2 pair black ſhoe buckles, 14d *per* pair				
	1 pair ditto, knees - -			0	0 8
	2 doz. ſilver handled knives and forks, at 30s *per* doz. - -				
J.	1 doz. ditto, deſſerts - -			1	1 0
				18	17 0
	14th.				
	Mr. *Thomas Underwork*, Sheffield, Dr.				
	To my draught on Meſſrs. Paywell and Co. London		18	34	1 6
	Note, 1. This caſe is ſimilar to H. Everet's of the 24th inſtant; to which I refer you for inſtructions. 2. See a copy of the draught in the Bill of Exchange Book, *L. l*, and of the letter, in the Letter-Book, fol. 7.				
To f. 38 B F.	Mr. *Joſeph Young*, Dr.				
	1 ſet black buckles - -			0	2 0
	Mr. *Edward Ninny*, Dr.				
	½ cwt. long handled frying-pans, at 2l 9s *per* cwt.		18		
	¾ cwt. ſhort ditto, at 2l. 11s 4d ditto -				
J.	10 cwt. 1 qr. 17 lb. iron, at 18l *per* ton				
				12	10 2½

———*Edinburgh*, 28th *March*, 1777.———

		Fol.	L.	s.	d.
J.	Received of John Simkins, on accompt	18	2	2	0
	Note, See the receipt given him in the *bill of exchange book*, M m.				
	Mr. *John Underworth*, Dr.				
	6 razor cases and straps, 24s *per* doz. -	8			
	3 pair Lond. gilt shoe buckles, 5s 3d *per* pair				
J.	3 pair ditto pierc'd, 6s 3d ditto -				
			2	6	6
J.	Receiv'd of Edward Carpenter, on accompt	18	2	2	0
	Note, See the receipt in the *bill of exchange book*, N n.				
	30th				
	Mr. *James Sorsby*, Dr.				
To f. 38 B. F.	2 pair brass candlesticks, at 5s *per* pair -				
	2 pair iron snuffers, at 6d ditto -				
			0	11	0
	31st.				
J.	Paid freight and carriage of goods, and postage of letters, &c. this month -	8	1	8	3
J.	Paid Edward Trusty a quarter's salary	18	7	10	0
J.	Paid house expences for this month -	18	5	3	0
J.	Paid my house-keeper a quarter's wages	18	1	0	0
J.	Paid a quarter's rent of my house -	18	6	0	0
	Sold for ready money				
Pr. c. 23 J.	17 cwt. 1 qr. 25 lb. iron, at 18s 8d *per* cwt.	18			
	Note, 1. The small accompts, which remain undischarged, are to be brought forward, according to the directions given folio 18: when finished, they will stand as follow.				
	2. As the scholar, by this time, will be pretty well acquainted with the nature of Dr. and Cr. I shall not journalize the next month's accompt, but leave him to post immediately from this book into the Ledger.				

ACCOMPTS

Edinburgh 1st *April*, 1777.

ACCOMPTS BROUGHT FORWARD.

			Fol	L.	s.	d.
Receiv'd 29. Apr.	*Gripe, Ralph,* Dr. - - from		25	0	6	10
			26	0	6	6
To f. 48	*Keepwell, Thomas,* Dr. -		25	0	8	6
			36	2	0	0
	Cr. L. 2 : 0 : 0 -		41			
To f. 48	*Longhead,* Mrs. Dr. -		25	0	7	6
			28	1	1	0
			33	0	7	0
Receiv'd 20th Apr.	*Finikin,* Mrs. Dr. -		25	0	16	0
			32	0	3	6
To f. 48	*Merry, William,* Dr. -		25	1	16	6
			30	0	3	6
	Cr. L. 1 : 1 : 0 -		25			
To f. 48	*any,* Miss, Dr. - -		27	0	4	0
			29	0	2	6
Receiv'd 4th Apr.	*Downright,* Miss, Dr. -		27	1	2	0
			32	0	8	6
To f. 48.	*Wimble,* Mrs. Dr. -		31	0	1	6
To f. 48.	*Rider, Thomas,* Dr. -		33	0	8	0
To f. 48.	*Merchant, Thomas,* Dr. -		34	1	7	0
To f. 48.	*Young, Joseph,* Dr. -		36	0	2	0
To f. 48.	*Sorsby, James,* Dr. - -		37	0	11	0

Edinburgh, 1ſt *April*, 1777.

		L.	s.	d.
	Note. Obſerve, that the figures in the margin of this month's accompt refer immediately to the *Ledger*, except where caſh has been received; for then they refer to the *Caſh-book.*			
	1ſt *April*, 1777.			
	Mr. *Edward Honeſty*, Dr.			
10.	To my draught on Meſſrs. Paywell and Co. London. - - -	100	0	0
	Note, See a copy of the draught in the *bill of exchange book*, *O o*—alſo, ſee it entered in the *bill-book.*			
	2d.			
	Mr. *John Simkins*, Dr.			
	4 doz. ſham buck table knives and forks, at 2s 4d *per* doz. - - -			
	3 doz. ditto, each 2s 6d—2s 10d ditto			
	2 doz. real ditto, 4s 2d ditto -			
	2 doz. ſtag ditto, 4s 9d ditto -			
	2 doz. green Chineſe ivory ditto, 18s ditto			
	2 doz. ditto, deſſerts, 11s ditto -			
	2 cruet frames, with bone tops, 7s each			
	1 ditto, ivory ditto	0	8	6
	1 dz. pierc'd pinchbeck buckles, at 2s *per* pair			
	1 doz. ditto, 2s 4d ditto - -			
8.	1 doz. plain ditto, 1s 8d - -			
		9	15	8
	Mrs. *Marble*, Dr.			
	1 neat Morocco pocket-book -	1	2	0
To f. 48	1 ſilver thimble - - -	0	1	6
	Receiv'd for ſundry articles, as by the Till-Book - -			
4.		2	5	10
	Mr. *Richard Woodmonger*, Dr.			
Pr. c. 23	2 tons 11 cwt. 1 qr. 18 lb. Siberia iron, at			
9.	18s 8d *per* cwt. - -			
	4th			
	William Thorogood, Eſq; Dr.			
	2 double doz. ſtrong ſilver handled knives and forks, at 2l 12s 6d *per* doz. -			
	1 double doz. ditto, deſſerts -	1	12	
7.	2 knife-caſes, ſilver'd furniture, 15s each			
		8	7	0
B. F. f. 38	Receiv'd for ſundries of Miſs Downright, in			
4.	full - -	1	10	6

Edinburgh, 4th *April*, 1777.

		L.	s.	d.
	Note, See the receipt given to her in the *bill of exchange book*, P p.			
	6th			
	Mr. *William Woodman*, Dr.			
	3 ſilver pencil-caſes with ſeals, at 3s each			
A&M.	3 ditto, each 3s 8d-4s 4d ditto -			
	3 ditto without ſeals, 2s 6d ditto -.			
	1 ditto, each 2s- 3s 8d ditto -			
	1 ſteel inſtrument-caſe - -	0	1	3
—	3 ditto, each 1s 6d 5s-5s 6d-6s each			
—	2 ditto, each 4s 6d and 7s ditto -			
—	2 pair plated ſpurs, each 4s-4s 6d *per* pair			
—	3 pair ditto, each 5s-5s 6d-6s 6d ditto			
7.		10	0	11
	7th			
4.	Received of Frederick King, Eſq; in full	7	7	0
	Note, 1. Examine your Ledger, and you will find, that Frederick King Eſq; ſtands indebted to you 7l. 7s. for goods ſold and delivered at ſund y times. I ſhall now ſuppoſe you want mone ; therefore, draw out his accompt as it ſtands *there*, and ſend it to him.			
	2. King immediately pays it, which cauſes the above entry.			
	3. If you be at a loſs to draw out the accompt, refer to the Bill of Exchange-Book at *Q q*, where you will ſee it done in a clerk-like manner.			
	4. To journalize this, *C ſh* would be made Dr. to F. King for the above ſum; but as this month's occurrences are to be poſted (without a journal) from the Waſte book, you muſt poſt this on the Dr. ſide of your Caſh-book; from which, F. King's accompt muſt be credited; placing the correſponding reference figures in each book, as before directed.			
	5. The figure in the margin refers to the Caſh-book, the ſame as if it had been journaliz'd.			
To f. 48.	Mr. *Thomas Keepwell*, Dr.			
B. F.	1 pair neat ſcrew barrel pocket piſtols	2	12	6
	Mr. *William Builder*, Dr.			
	2 m. 24 nails, at 17s 6d *per* m. -			
	3 m. 20d ditto, at 14s 6d ditto -			
	4 m. 12d ditto, at 8s 6d ditto -			
	4 m. 10d ditto, at 7s 6d ditto -			
	8 m. 8d ditto, at 6s 6d ditto -			
	Carried over	9	14	6

Edinburgh, 7th *April*, 1777.

		L.	s.	d.
	William Builder, Dr.			
	Brought over	9	14	6
	2 doz. bright double worm gimblets, at 24s *per* groſs - -			
	2 doz. black ſingle ditto, at 15s ditto			
6.	2 doz. common ſorted box ditto, at 9s ditto			
		10	2	6
4.	Received of William Builder on accompt	4	0	0
	Note, 1. Poſt this by the 4th note of the laſt folio. 2. See a copy of the receipt given him, in the Bill of Exchange-book, *R r*.			
	8th			
8.	Received of John Underworth, in full	9	14	10
	Note, Obſerve the directions given in the laſt entry, and ſee the Bill of Exchange Book, *S s*.			
4.	Received of John Deal on accompt	2	0	0
	See a copy of the receipt given him, in the Bill of Exchange Book, *T t*.			
	Mr. *John Deal*, Dr.			
	1 doz. bright cheſt locks -	0	9	6
	2 doz. × key'd varniſh'd do. at 4s *per* doz.			
	2 doz. × ward ditto, at 5s ditto -			
A & M.	2 dz. braſs handles, ea. at 4s-4s 6d-5s-6s *per* dz.			
8.	1 doz. hat pins, each 1s 6d-2s-2s 6d ditto			
		3	2	6
	9th			
4.	Received for ſundry articles ſold this week, as *per* the Bill-Book -	3	2	0
10.	Receiv'd from Edward Honeſty a draught on Meſſrs. Bywell and Co. London, at 30 days	33	0	0
	Note, 1. A copy of the above draught may be ſeen in the Bill of Exchange Book, *U u*. 2. See it entered in the Bill-Book.			
	Mr. *Edward Quickpay*, Dr.			
	1 doz iron ſnuffers - -	0	2	6
	1 doz. ditto, each 2s 9d-3s 3d-4s 9d *per* dz.			
	Carried over	0	13	3

Edinburgh 9th *April*, 1777.

	Mr. *Edward Quickpay*, Dr.	L.	s.	d.
	Brought over	0	13	3
	4 pair ſpring'd poliſh'd ſnuffers, at 2s *per* pair			
	4 pair ditto, 2s 6d ditto – –			
	3 pair ditto, 3s 3d ditto – –			
	1 fine poliſh'd ſtand – –	0	3	0
	1 ditto – – –	0	3	9
	½ doz. pair boot buckles – –	0	1	0
A&M.	2 pair boot ſtraps, ea. 18d–22d–2s 4d *per* pair			
12	1 draught board, each, at 5s 6d and 6s			
		4	0	7

Mr. *Andrew Screwfaſt*, London, Dr.

To an indorſement on Meſſrs. Bywell and Co London – – 33 0 0

Pr.C24 4. To diſcount of 33 l. 17s. at 2½ l. *per cent.*

		33	17	0

Note, 1. You muſt indorſe the above draught, which you received from Edward Honeſty, before you ſend it to Screwfaſt in a letter by the poſt; a copy of which letter may be ſeen in the *Letter-Book*, fol. 7.

11th.

Mr. *Thomas Keepwell*, Dr.

To f.48 B. F. 1 pair chain ſpurs – – 1 6 0

Cr.

BF.f.38 4. By Caſh on accompt – 2 0 0

Note, The caſh received muſt be poſted, and Thomas Keepwell credited for it in the *brought forward accompts*.

Mr. *Joſeph Hibernian*, Dublin, Dr.

	4 fine paper ſnuff boxes, at 3s 9d each			
A&M.	4 ditto, each 3s–2s 6d and 2s ditto –			
—	4 ditto, each 1s 8d 1s 4d and 1s 1d ditto			
—	4 do. toothpick-caſes, ea 1s 4d–2s & 2s 6d ditto			
	1 doz. tortoiſeſhell toothpicks –	0	1	4
	1 doz. dit o pole combs – –	0	8	0
	4 tortoiſeſhell combs in caſes, 15s *per* doz.			
A&D.	4 ditto, each 18s-22s-26s-30s ditto			
	½ doz. comb bruſhes, 3s 6d ditto –			
	1 doz. tooth ditto – –	0	2	0
	1 doz. ditto, with ſponge – –	0	2	6
	3 pair plated ſhoe buckles, 2s 8d *per* pair			
A&M.	3 pair ditto, each 3s–3s 3d–3s 6d ditto –			
	Carried over	9	4	6

Edinburgh, 11th *April*, 1777.

	Mr. *Joſeph Hibernian*, Dublin, Dr.	L.	s.	d.
	Brought over	9	4	6
—	3 pair ditto pierc'd. each 3s 9d–4s 4s 4d			
	3 pair ſugar nippers, at 2s 6d *per* pair			
—	1 pair ditto, each 2s 10d–3s 2d ditto –			
	3 fine ſteel inſtrument caſes, 1s 8d each			
—	3 ditto, each 1s 10d–2s 6d–3s–3s 8d ditto			
	3 plain ſilver pencil-caſes, at 2s 6d each			
	2 ditto, at 3s ditto – –			
—	3 ditto with ſeals, each at 3s–3s 8d–4s 3d ditto			
	2 doz. cedar pencils, at 2s *per* doz. –			
	2 pair pillar candleſticks, princes' metal, at 10s 6d *per* pair – – –			
	2 pair ditto, each 12s–13s–15 6d ditto –			
	2 hand candleſticks, ditto, at 5s 9d each			
	1 neat copper urn – – –	1	16	0
	1 ditto – –	2	9	0
	3 pair ſpring ſnuffers, 1s 10d *per* pair			
A&M	3 pair ditto, each 2s 4d–3s–3s 6d–4 ditto			
	2 fine poliſh'd ſtands, at 2s 10d each –			
—	2 ditto, each 3s 6d–4s–4s 8d–5s 9d ditto			
—	3 pair fine ſteel ſhoe buckles, each 1s 4d–1s 10d *per* pair – – –			
	6 ſteel watch chains, at 10s *per* doz. –			
A&D.	6 ditto, each at 12s–22s and 30s dittto			
	Box – – –	0	2	3
		32	15	3
Pr.c. 24	Diſcount 5 l. *per cent.* for ready money			
43	*Delivered to H. Howey, Newcaſtle carrier, per* E. T.	31	2	6

Note, 1 You are to ſend the above goods to Mr. John Factor of Newcaſtle, by order of Mr. Hibernian, and a letter by the poſt, to inform him thereof, deſiring him to ſhip them on board the firſt veſſel bound to Dublin.—See the *letter-book*, fol. 8.

2. The invoice of theſe goods muſt likewiſe be ſent to Mr. Hibernian in a letter, wherein *he* muſt be informed, that you have forwarded the above in a Box to Mr. John Factor of Newcaſtle.—See the *letter-book*, fol. 8.

3. Regular merchants, ſending goods *to* or *from* London, *&c.* by common ſtage-waggons, always give the carriers a *note* with them, called a *carriage note;* The ſtyle of them is pretty general, and the following is a copy, proper to be given on this occaſion:

Mr. *Henry Howey*, *Edinburgh*, 11th *April*, 1777.

You are to deliver with all poſſible ſpeed, in as good condition as received, a Box, marked and numbered as *per* margin, to Mr. John Factor merchant at Newcaſtle.—On return of this note, (the receipt of the above goods being acknowledged,) you ſhall receive 4s *per* cwt. from W. P.

J. H. No. I. *Dublin*

4. When

Edinburgh, 11th *April*, 1777.

4. When these goods shall have been delivered to Mr. Factor, he is to write on the note, *Receiv'd* per *J. Factor*.---But if Mr. Factor's servant receive them, *he* should write, *Receiv'd for Mr. J. Factor*, per *A. B.*

		L.	s.	d.
	13th.			
	Mrs. *Wimble*, Dr.			
To f. 48 B. F.	1 neat Morocco pocket-book - -	1	0	0
	14th.			
	Mr. *Edward Yelloly*, Dr.			
	½ dz. six in. Banbury stock locks, at 6s 6d *per* dz.			
A&D.	½ dz. do. ea. 7, 8, & 9 in. at 7s 6d-9s-10s 6d do.			
	1 japann'd eighteen inch tea tray -	0	12	6
	1 do. ea. 20, 24 & 28 in. at 14s 6d-24s-32s ea.			
A&M	3 common japann'd waiters, each 12, 10, and 8 inch, at 4s-3s 3d-2s 3d ditto -			
12.		6	8	3
4.	Receiv'd of Richard Woodmonger on accompt	5	5	0
	See a copy of the receipt given him in the *bill of exchange book*, *V v.*			
	Mrs *Allworthy*, Dr.			
To f. 48 B. F.	1 pair fine chamber bellows -	0	5	6
	15th.			
	Mrs *Marble*, Dr.			
To f. 48 B. F.	1 twenty-eight inch japann'd tea-tray	1	10	6
4.	Receiv'd of Edward Carpenter, on accompt	4	4	0
	See a copy of the receipt given him in the *bill of exchange book*, *W w.*			
	16th.			
	Mr. *William Merry*, Dr.			
To f. 48 B. F.	1 twenty-four inch japann'd tea tray -	1	4	0
	Mr. *John Blacksmith*,. Dr.			
11.	7 cwt. 3 qrs. 15 lb. iron, 18s 8d *per* cwt			
	Cr.			
4.	By cash on accompt - -	3	3	0
	Note, 1. Post the goods as before directed, and the Cash by note 4th, folio 40.			
	2. See a copy of the receipt given him in the *bill of exchange book*, *X x.*			
4.	Receiv'd for sundries sold this week, as by the Till-book - -	4	7	4

Edinburgh 16th *April*, 1777.

		L.	s.	d.
	Mr. *William Hardſide*, London, Dr.			
4.	To caſh paid his draught on me, to James Ray	33	11	6
	Note, To poſt this, obſerve the directions given in the Journal, folio 11. and for a copy of the draught, refer to the *bill of exchange book*, *Y y*, from which it muſt be copied into the *bill-book*.			
	18th.			
	Miſs *Puny*, Dr.			
Tof.48 B F.	1 eleven inch japann'd waiter -	0	4	6
	20th.			
	Receiv'd *for ſundries* of Mrs. Finikin -	0	1	6
BF.f.38 4.	See a copy of the receipt given her in the Bill of Exchange Book, *Z z*.			
	Mr. *Henry Darling*, London, Dr.			
3.	To caſh paid his draught on me to Thomas Truepenny - - -	40	0	6
	Note, 1. Refer to the Journal, fol. 11. 2. See a copy of the draught in the Bill of Exchange Book, *A* 2. And, 3. See it entered in the Bill Book.			
	Mr. *Thomas Plumtree*, Dr.			
Pr.c.23 9.	1 ton 17 cwt. 3 qrs. 4 lb. of Siberia iron, at 18s 8d *per* cwt. - - -			
	Mr. *William Novice*, Dr.			
Tof.48 B. F.	1 neat copper urn - - -	1	7	0
	22d.			
	Received of William Wynn, Eſq; in full	12	2	0
4.	*Note*, See his accompt drawn out, and a receipt given him, in the Bill of Exchange Book, *B* 2; previous to which, I refer the ſcholar to the notes under an entry of F. King's, fol. 40.			

Edinburgh, 23d *April*, 1777.

		L.	d.	s.
	Received *for ſundries* ſold this week, as *per* Till			
4.	Book - - -	9	12	2
	Mr. *Edward Honeſty*, Dr.			
	To my draught on Meſſrs. Paywell and Co.			
10.	London - -	130	0	0
	Note, 1. See a copy of the draught in the Bill of Exchange Book. *C* 2.			
	2. Refer to the Bill-Book, and ſee it enter'd.			
	Mr. *Thomas Keepwell*, Dr.			
To f. 48 B. F.	1 tea bell - - -	0	2	6
	Caſh, Dr.			
4.	To Joſeph Hibernian for my draught to *Knobs* and *Merry*, or order, for 34l. exchange at $9\frac{1}{4}$ l. *per cent.* - -	31	2	6

Note, 1. Before you can draw on Mr. Hibernian of Dublin, (or on any foreign city, &c.) you muſt firſt know, by inquiry, the courſe of exchange, which, between London and Dublin, I ſhall ſuppoſe this day to be $109\frac{1}{4}$ l. *per cent.*

2. If you be not acquainted with any Dublin merchants or brokers, you are to go to the Royal Exchange, and on the Iriſh Walk enquire for a broker, who, for a very inconſiderable ſum, will procure you a merchant, who will take your bill, and give you caſh for it immediately, eſpecially, as the rate of exchange is above *par*, that is, in favour of London $1\frac{1}{17}$ l. *per cent.* for, according to the courſe of Exchange, London gives 100 l. Sterling for $109\frac{1}{4}$ l. Iriſh money; and the *par* of exchange is $108\frac{1}{3}$ l. *per cent.* See *Exchange*, pages 133 and 138.

3. Advice ſhould be ſent immediately to him *per* poſt, that you have drawn on him, &c. See the Letter Book, fol. 8. alſo a copy of the Bill of Exchange, in the Bill of Exchange Book, at *D* 2.

	25th.			
	Mr. *Edward Freewill*, Dr.			
	2 pair braſs candleſticks, at 3s *per* pair -	0	6	0
To f. 48 B F.	1 pair ſpring ſnuffers - -	0	2	0
		0	8	0
4.	Received of Edward Honeſty, on accompt	150	0	0
	Mr. *John Deal*, Dr.			
	1 pit ſaw - - -	1	11	6
8.	10 m. 6d nails, at 4s 6d *per* m. - -			
		3	16	6
	27th.			
4.	Received of William Thorogood, Eſq; in full	12	16	0

Edinburgh, 2nd *April*, 1777.

		L.	s.	d.
	See a copy of the accompt, and of the receipt given him in the Bill of Exchange Book, *E* 2.			
	Mrs. *Wimble*, Dr.			
To f. 48 B. F.	To 1 twenty inch japann'd tea tray –		0	14 0
	28th.			
4.	Received of Edward Carpenter in full See a copy of his accompt current, *&c.* in the Bill of Exchange Book, *F* 2.		3	6 9
4.	Received of William Builder in full – See a copy of his accompt current, *&c.* in the Bill of Exchange Book, *G* 2.		15	14 0
4.	Received of John Deal in full – See a copy of his accompt in the Bill of Exchange Book, *H* 2.		10	8 0
4.	Received of Edward Honesty in full – See a copy of his accompt current in the Bill of Exchange Book, *K* 2.		9	1 0
	29th.			
4.	Received of Messrs. Paywell and Co. London, in full, by my draught for the balance in hand to William Amicable, at sight *Note*, 1. You must here make *Cash*, Dr. *L. s. d.* To Messrs. Paywell and Co. for my draught to William Amicable - 29 19 6 2. Having now drawn for the balance, you should write out their accompt, return their promissory note, and write them a letter by the post. 3. See a copy of the bill of exchange in the bill of exchange book, *L* 2; a copy of the accompt, *M* 2; and a copy of a letter sent to the directors, in the letter-book, fol. 8.		29	19 6
B. F. f. 38. 4.	Received for sundries of Ralph Gripe in full See a copy of the receipt given him, in the bill of exchange book, *I* 2.		0	13 4
	Mr. *Joseph Young*, Dr.			
To f. 48 B. F.	To 2 London razors, at 2s 6d each –		0	5 0
	30th.			
4.	Received for sundries sold this week, as by the Till-Book. - - -		3	13 10
4.	Paid house-expences for this month - *Note*. Bring the accompts forward for the last time, according to former directions, and they will stand as follow:		6	14 3

Edinburgh, 30th *April*, 1777.

ACCOMPTS BROUGHT FORWARD.

	Fol	L.	s.	d.
Keepwell, Thomas, Dr. - -	38	2	8	6
	40	2	12	6
	42	1	6	0
	44	0	2	6
Cr. L. 2 : 0 : 0 -	38			
Longhead, Mrs. Dr. - -	38	1	15	6
Merry, William, Dr. - -	38	2	0	0
	44	1	4	0
Cr. L. 1 : 1 : 0 -	38			
Miss, Puny Dr. - -	38	0	6	6
	45	0	4	6
Wimble, Mrs. Dr. - -	38	0	1	6
	44	1	0	0
	47	0	14	0
Rider, Thomas, Dr. - -	38	0	8	0
Merchant, Thomas, Dr - -	38	1	7	0
Young, Joseph, Dr. -	38	0	2	0
	47	0	5	0
Sorsby, James, Dr. - -	38	0	11	0
Marble, Mrs. Dr. - -	39	1	3	6
	44	1	10	6
Allworthy, Mrs. Dr. - -	44	0	5	6
Novice, William, Dr. - -	45	1	7	0
Freewill, Edward, Dr -	46	0	8	0
Carried to balance, L.		18	2	0

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End of the WASTE-BOOK.

JOURNAL.

EDINBURGH, 1st January, 1777.

		Fo.	L.	s.	d.
	Caſh, Dr.				
1	To ſtock, *advanced in trade*	1	1000	0	0

Note, 1. The inventory being journaliz'd, as above, you muſt refer to your Ledger, and open accompts therein for *Caſh* and *Stock*. Begin with *Caſh*, and in the alphabet, or index, under the letter *C*, write Caſh, fol. 1. Next refer to the firſt ruled *page* or *folio*, and place in the middle thereof the figure (1.) Then, in a good ſtrong *text hand*, write *Dr. caſh Cr.* obſerving to place Caſh in the middle, Dr. on the left hand, and Cr. on the right. Next place the year, and day of the month; and becauſe Caſh is *Dr.* write on the Dr. ſide, *To ſtock advanced in trade*, 1000 *l.* The ſame muſt be done in the *Caſh-book*. In the margin of the Journal, put the figure (1) which will denote the entry to be poſted in fol. 1 of the Ledger; and alſo, in the *ſmall column* preceding that of money, which refers back to the Waſte-Book.

2. The *figures* in the margin of the *Journal* always refer to the *folio* of the *Ledger* or the *Caſh-Book*, wherein ſuch accompts are entered *: but *thoſe* in the *inner column* preceding the money, ſhew from what folio of the Waſte-book they are taken.

3. You muſt erect an accompt for *Stock* in the ſame manner: On the Cr. ſide whereof, write, *By Caſh advanced in trade*, 1000 *l.* and in the ſmall column preceding that of money, place the figure which will refer to the *Caſh-Book*; and in the Caſh-Book place the ſame figure, which will refer to *Stock*.

4. The figures on the *left hand* of the money column in the Ledger, refer to the Journal; except, 1*ſt*, When Caſh is Dr. or Cr. *to* (*T*) or *by* (*B*) a perſon; for then they refer to the *folio* of the *Ledger* in which thoſe perſons' accompts are poſted, whether Dr. or Cr. Or, 2*dly*, If goods have been bought from manufacturers; for in this caſe, they refer to the *Invoice-Book*.

5. Take your Invoice Book, and erect accompts in the Ledger for every perſon you have bought goods of, as you have been above directed; and on the *Cr.* ſide of each perſon's accompt, write, *By goods*, for the *ſum total*: but remember always to put the *year* and *date* of each *tranſaction*.

* *All entries of Caſh are poſted in the Caſh Book.*

Edinburgh, 6th *January*, 1777.

		Fo.	L	s.	d.
	Meſſrs. Paywell & Co. Bankers *London*, Drs.				
5	To *Caſh* lodged with them on promiſſory note	2	500	0	

Note, 1. Open an accompt for Meſſrs. Paywell & Co. in the Ledger, as before directed, and write on the *Dr.* ſide, *To Caſh*, &c 500 *l.* and place the reference figure.

2. As Caſh has been debited for all the money you had, it muſt now be credited for the ſum taken from it; therefore, on the Cr. ſide of your Caſh-Book, write, *By Meſſrs. Paywell & Co.* 500 *l.*—Then in the *column* preceding the *money*, place the *folio figure* of the Ledger, where Meſſrs. Paywell & Co's. accompt is erected.

3. When, in any entry of the Journal, a perſon is made *Dr.* to *Caſh*, after you have debited him in the Ledger, you muſt refer to your *Caſh-Book*, and *credit* Caſh by *that* perſon for the like ſum.

4. And when, in the Journal, Caſh is made *Dr.* to any perſon, after having *debited* caſh to that perſon, you muſt immediately refer to the ſame perſon's accompt, and *credit* him for the like ſum. And remember, in both theſe caſes, to put the reference figures to the correſponding accompts.

When Caſh, in the Journal, is made *Dr.* or *Cr. to* or *by* Sundry Accompts, this entry needs only be placed on the *Dr.* or *Cr.* ſide of the *Caſh-Book*, as the Journal imports: But note, if you were in actual buſineſs, all caſh paid away, either in diſcharging debts, or contingent expences, would firſt appear on the *Cr.* ſide of your *Caſh-Book*.

Caſh, Cr.

1	By freight and carriage of Amos's goods -	2	0	3	6

Poſt this by the 5th note of the laſt entry, and all of this kind,

8th.

Caſh, Cr.

1	By freight and carriage of goods -	2	0	2	6

10.

Caſh, Cr.

1	By freight and carriage of goods - -	2	0	1	8

Bennet, Adam, Sheffield, Dr.

	To my draught on Meſſrs. Paywell & Co.	2	8	10	6
3	To diſcount at 10 l. *per cent.* of 9 l. 9 s. 7½ d.		0	18	11½
	To abatement - - - - -		0	0	2
	In full -		9	9	7½

Edinburgh, January 10th, 1777.

Poſt the laſt entry in *three* lines, as it ſtands there, which will balance his accompt; and remember to put the reference figures.

		Fol	L.	s.	d.
	Meſſrs. Paywell & Co. *London*, Crs.				
5	By my draught to Adam Bennet, at ſight -	3	8	10	6

Poſt the above *verbatim* on the Cr. ſide of their accompt, and place the reference figure.

11th.

	Caſh, Cr.				
1	By freight and carriage of goods - -	3	1	15	6

	Everet, Humphry, Newcaſtle Dr.				
4	To my draught on Meſſrs. Paywell & Co. at ſight - - - - - -	3	47	15	0
	To abatement - - - - -		0	0	4½
			47	15	4½

Note, 1. Debit him in the Ledger *verbatim*, as above; then refer to Meſſrs. Paywell & Co's. accompt; and on the Cr. ſide, write, *By my draught to Humphry Everet, at ſight*, L. 47 : 15 : 0; remembering always to put the reference figures; which, if *not* done, is a proof that the correſponding accompt is either not *debited* or *credited*.

13th.

	Friend, John, Dr.				
6	To 1 cruet frame, ſilver tops -	4	1	5	0
	1 twenty-eight inch jappann'd tea tray -		1	8	0
	L.		2	13	0

Note, 1. To poſt this, (after having opened an accompt, according to former inſtructions,) write on the Dr. ſide, *To ſundry articles*, *To ſundries*, or, *To goods*, L. 2 : 13 : 0. 2. The ſum total *only* of goods bought or ſold, in Book-keeping by *ſingle entry*, is expreſſed in the Ledger.

	Builder, William, Edinburgh, Dr.				
6	To 3 Banbury ſtock locks, each 6 and 7 inch. at at 8s 9s *per* doz. - -	4	0	4	3
	2 common foot rules, at 4d each -		0	0	8
	2 two foot ditto, at 8d each -		0	1	4
	½ doz. X key'd box locks, at 4s *per* doz.		0	2	0
	½ doz. X ward ditto, at 5s ditto -		0	2	6
	L.		0	10	9

Edinburgh, 13th *January*, 1777.

	Caſh, Dr.	Fol	L.	s.	d.
1	To ſundry articles – –	5	6	4	3
	14th.				
	Wi kam, Thomas, Eſq; Dr.				
6	To 1 fine paper ſnuff box – –	6	0	3	6
	1 fine ditto toothpick caſe –		0	2	6
	1 pair plated ſpurs – –		0	5	6
	1 two doz. knife caſe, ſilver'd furniture –		0	15	0
	2 doz. green ivory Chineſe knives and forks, at 18s *per* doz. – –		1	16	0
	L.		3	2	6
	15th.				
	Carpenter, Edward, Dr.				
7	To ½ doz. T. hinges, each at 3s 6d–4s *per* doz.	6	0	3	9
	3 pair inſide cheſt ditto, at 8s–9s ditto –		0	4	3
	½ groſs wood ſcrews, ſorted, 2s 6d *per* groſs		0	1	3
	1 ſix inch two bolt braſs knob rim lock –		0	3	3
	1 do. each 8 in. 9 in. at 5s 6d–7s 6d each		0	13	0
	2 twenty-ſix inch beſt hand ſaws, at 5s 3d *ea.*		0	10	6
	1 beſt pit ſaw – – –		1	6	0
			3	2	0
	17th.				
	Builder, William, Dr.				
6	o ½ doz plane irons, ſorted, at 6s *per* doz.	6	0	3	0
	½ doz. chiſels, at 8s ditto – –		0	4	0
	2 black augers. each ½ in. ⅝ths, at 8s–9s *do.*		0	2	10
	1 adz. weight 6 lb. at 7½ d. *per* lb. –		0	3	9
	½ doz. pit ſaw files, ſorted, 4s *per* doz. –		0	2	0
	2 raſps, 14 d. each – –		0	2	4
	3 red chalk pencils, 6d *do.* –		0	1	6
	½ dz. bright box head gimblets, at 18d *per* dz.		0	0	9
	1 doz. common ditto – –		0	0	9
	L.		1	0	11
	20th.				
	Thorogood, William, Eſq; Dr.				
7	To 1 pair neat pocket piſtols, ſcrew barrels –	7	2	12	6
	1 pair neat braſs candleſticks –		0	8	0
	1 pair ſteel ſnuffers and ſtand –		0	11	6
	1 pair pierc'd London gilt ſhoe buckles –		0	7	6
	2 beaufet cork ſcrews, at 1s each –		0	2	0
	1 neat barrel ditto – –		0	1	0
	2 fine London razors, at 2s 6d each –		0	5	0
	1 fine ditto penknife – –		0	1	6
	L.		4	9	0

Edinburgh 22d *January*, 1777.

		Fol.	L.	s.	d.
	Friend, John, Dr.				
6	To 1 ſet fire ſhovel, tongs, and poker –	7	0	7	6
	1 ſet ditto – –		0	6	0
	2 fenders, at 3s 9d each – –		0	7	6
	L.		1	1	0
	Woodman, William, Dr.				
7	To 2 pair gilt ſleeve buttons, at 1s *per* pair	8	0	2	0
	2 pair enamel'd ditto, at 4d ditto –		0	0	8
	2 pair pinchbeck ſhoe buckles, 2s ditto –		0	4	0
	1 pair fine ſteel ſnuffers – –		0	2	3
	2 pair common ditto, at 6d *per* pair –		0	1	0
	L.		0	9	11
	24th.				
	Caſh, Dr.				
1	To John Friend, receiv'd of him in full –	8	3	14	0
	Note, The directions given in the 4th note, folio 2. is applicable to *this*, and every ſucceeding *ſimilar* entry.				
	Caſh, Dr.				
1	To William Builder, received of him in full –	8	1	11	8
	Simkins, John, Dr.				
8	To 3 plain iron candleſticks, ea. at 3s– 4s *per* dz.	8	0	1	9
	3 ſingle ball'd ditto, each 4s 6d–5s 6d ditto		0	2	6
	3 double ditto, each 11s–12s ditto –		0	5	9
	3 plain ſcrew'd ditto, each 10s–11s ditto –		0	5	3
	½ doz. com. varniſh'd padlocks, at 3s do. –		0	1	6
	½ doz. ditto, at 4s ditto – –		0	2	0
	1 doz. buffalo couteaux, at 7s–8s ditto –		0	15	0
	1 doz. common ſpring penknives –		0	4	6
	1 doz. beſt ditto – – –		0	5	6
			2	3	9
	Wickam, Thomas, Eſq; Dr.				
6	To 4 beſt London razors, at 2s 6d each –	9	0	10	0
	1 beſt camp cruet frame, ſilver tops –		2	16	0
	1 pair neat pocket piſtols – –		2	2	0
	L.		5	8	0

——*Edinburgh*, 24th *January*, 1777.——

		Fol	L.	s.	d.
	Caſh, Dr.				
1	To ſundries – – –	9	6	10	8
	Kin, *Frederick*, Eſq; Dr.				
8	To 1 ſet fire ſhovel, tongs and poker –	10	0	7	6
	2 neat plain fenders, at 4s each		0	8	0
	2 pair braſs candleſticks, at 6s *per* pair –		0	12	0
	L.		1	7	6
	25th.				
	Carpenter, *Edward*, Dr.				
7	To ½ doz. ✕ key'd box locks, at 4s *per* doz. –	10	0	2	0
	½ doz. bright ſtraight cupboard *do.* 5s 6d *do.*		0	2	9
	½ doz. ditto, to cut, at 7s ditto –		0	3	6
	3 bright cheſt locks, at 10d each –		0	2	6
	L.		0	10	9
	Wynn, *William*, Eſq; Dr.				
7	To 1 fine fowling-piece, ſilver mounted –	10	3	13	6
	2 fine London razors, at 2s 6d each –		0	5	0
	1 neat caſe and ſtrap for ditto –		0	2	6
	L.		4	1	0
	Caſh, Cr.				
1	By freight and carriage of goods –	10	0	7	6
	28th.				
	Underworth, *John*, Dr.				
9	To 3 ſteel watch-chains, each, at 12s-18s-24s and 36s *per* doz. – –	12	1	2	6
	1 pocket-book, ea. at 10s 6d-12s & 15s –		1	17	6
	L.		3	0	0
	29th.				
	Plumtree, *Thomas*, Dr.				
9	To 3 Kentiſh hammers, each at 7s-8s-9s *per* doz.	12	0	6	0
	2 pair bellows, each, at 18s-21s-28s ditto		0	11	2
	1 pair fine chamber ditto – –		0	3	3
	1 doz. braſs handles and plates –		0	3	6
	1 doz ditto, each, at 4s-5s-5s 6d –		0	14	6
	L.		1	18	5

Edinburgh, 29th *January*, 1777.

		Fol	L.	s.	d.
	Wickam, Thomas, Eſq; Dr.				
6	To 1 neat fowling-piece – –	12	2	2	0
	Caſh, Dr.				
1	To Thomas Wickam, Eſq; in full –	12	10	12	6
	31ſt.				
	Caſh, Dr.				
1	To ſundries – – –	12	8	1	0
	Caſh, Cr.				
1	By ſundries – – –	13	4	19	5
	1ſt *February*.				
	Deal, John, Dr.				
8	To 3 Banbury ſtock locks, each 8 and 9 inch, at 10s and 11s *per* doz. – –	14	0	5	3
	3 ditto, each 10 and 12 inch, at 15s-20s *do.*		0	8	9
	½ doz. X ward cheſt locks, at 5s ditto –		0	2	6
	½ doz. bright ſtraight cupboard ditto, at 6s *do.*		0	3	0
	½ doz. ditto to cut, at 6s ditto –		0	3	0
	½ doz. varniſh'd padlocks, at 3s ditto –		0	1	6
	½ doz ditto, each at 3s 6d-5s ditto –		0	4	3
	4 double bolted ditto, at 10s ditto –		0	3	4
			1	11	7
	Caſh, Dr.				
2	To ſundries – – – –	14	0	13	0
	3d.				
	Woodmonger, Richard, Dr.				
	To ½ dz. black augers, each ½ and ⅝ inch. at 7s 6d and 8s 6d *per* doz. – –	14	0	8	0
	½ doz. ditto, ea ¾ and ⅞ in. at 9s 6d-12s *do.*		0	10	9
	1 doz. plane-irons, ſorted – –		0	4	6
	2 doz. gouges, at 5s *per* doz. –		0	10	0
	1 doz. chiſels – – –		0	6	6
	1 carpenter's adz, 5½ lb. at 8½ d. *per* lb. –		0	3	10¾
	Siberia iron, 10 cwt. 2 qrs. 24 lb. at 18s 8d *per* cwt. – –		10	0	0
	6 doz. ſorted 4½ inch files, at 17s *per* groſs		0	8	6
	Carried over		12	12	1¾

Edinburgh, 3d *February*, 1777.

		L.	s.	d.
	Woodmonger, Richard, Dr.			
	Brought over	14	12	12 1¾
5	6 doz files, each 5, 5½, 6, 6½ inch, at 18s 20s-22s-24s *per* groſs – –		2	2 0
	37 lb. rubbers, at 8d *per* lb. –		1	4 8
	3 doz. pit ſaw files, ſorted, 3s 4d *per* doz. –		0	10 0
	1 ſeven foot pit ſaw – –		1	10 0
	½ doz. hand ſaws, completed, 5s 3d each			11 6
	L.		19	10 3½
	Caſh, Dr.			
2	To ſundries – – –	15	0	10 0
	5th.			
	Vintner, William, Dr.			
10	To 1 four doz. knife-caſe, lacker'd furniture	15	0	19 0
	2 doz ſilver handled knives and forks, at 30s *per* doz. – – –		3	0 0
	1 doz. ditto, deſſerts – –		1	1 0
	L.		5	0 0
	Honeſty, Edward, Dr			
10	To caſh – – –	15	100	0 0
	Cr.			
	By a bill on Meſſrs. Cook and Downright, *London,* at 1 month – – –		33	9 0

Note, 1. For the firſt part of this tranſaction, refer to the 3d note at fol. 2.
2. For the latter part, Edward Honeſty's accompt muſt be credited *verbatim*, as above.

	Evans, Edward, London, Dr.			
3	To a bill on Meſſrs. Cook and Downright, at 1 month – – –	16	33	9 0
	To diſcount at 2½ *per cent.* – –		0	17 2
	To abatement – –		0	0 4
	In full, L.		34	6 6

Note, This muſt be poſted on the Dr. ſide of Evans's accompt, as it ſtands above.

	Fairdealer, Joſeph, Dr.			
10	To ½ doz. paper ſnuff boxes, each at 15s 18s 22s *per* doz. – –	17	1	7 6
	Carried over		1	7 6

——*Edinburgh*, 5th *February*, 1777.——

		Fol	L.	s.	d.
	Fairdealer, Joſeph, Dr.				
	Brought over	17	1	7	6
	To 3 toothpick caſes, each 15s 22s *per* doz. -		0	9	3
	2 pair plated ſpurs, ea. 3s 6d-4s-4s 6d 5s *per* pr.		1	14	0
	3 pair ſugar nippers, 2s 6d ditto -		0	7	6
	1 pair ditto, each 2s 9d-3s 2d. -		0	5	11
	3 ſteel inſtrument-caſes, each 20s-22s-30s-36s *per* doz. - -		1	7	0
	2 ſilver pencil-caſes, ea. 2s 6d-3s-3s 6d-4s 6d		1	7	0
10	1 dz. black lead pencils, ea. 1s 6d-2s-3s-3s 6d		0	10	0
			7	8	2
	Caſh, Dr.				
2	To ſundries - - -	17	5	6	10
	——7th.——				
	Builder, William, Dr.				
6	To 3 hundred 4d. nails, at 4d *per* hundred -	17	0	1	0
	2 ditto, each 6d-8d ditto, at 5d and 7d ditto		0	2	0
	1 ditto, 10d ditto - -		0	0	8½
	1 m. 2d. tacks - -		0	1	8
	2 m. 3d ditto, at 2s 3d *per* m. -		0	4	6
			0	9	10½
	——8th.——				
	Dawſon, Thomas, Eſq; Dr.				
11	To 2 pair princes' metal pillar candleſticks, at 15s *per* pair - -	17	1	10	0
	1 hand ditto - -		0	6	6
	1 pair fine ſteel ſnuffers and ſtand -		0	8	0
			2	4	6
	Deal, John, Dr.				
8	To 1 m. 4d. nails - -	18	0	3	6
	1 m. 6d. ditto - -		0	4	6
	½ m. 12d. ditto, at 8s 6d *per* m. -		0	4	3
	½ m. 20d. ditto, at 14s 6d ditto -		0	7	3
	¼ m. 24d. ditto, at 18s ditto -		0	4	6
	——10th.——		1	4	0
	Architect, Thomas, Dr.				
	To 1 doz. bright double worm gimblets -	20	0	2	0
	1 doz. black ſingle ditto -		0	1	6
	1 doz. common ditto - -		0	1	0
	2 large lead pencils, at 1s each -		0	2	0
	3 red chalk ditto, at 4d ditto -		0	1	0
	2 beſt twenty-ſix in. hand ſaws, at 5s 6d *do.*		0	11	0
			0	18	6

Edinburgh 10th *February*, 1777.

		Fol	L.	s.	d.
	Architect, Thomas, Dr.				
11	*Brought over*	20	0	18	6
	To 3 ſeven in. 2 bolt iron rim locks, at 4s 6d *ea.*		0	13	6
	3 ten inch ditto, at 10s 6d ditto -		1	11	6
	2 groſs ſorted wood ſcrews, 2s 6d *per* gr. -		0	5	0
	4 m. 2d. tacks, at 20d *per* m. -		0	6	8
	4 m. 3d. ditto, at 2s 3d ditto -		0	9	0
	2 m. 4d. ditto, at 3s 6d ditto -		0	7	0
	1 m. 8d. ditto - - -		0	6	6
			4	17	8
	11th.				
6	*Builder, William,* Dr.				
	To 3 ſix in. Banbury ſtock locks, at 8s *per* doz.	20	0	2	0
	3 eight inch ditto at 10s ditto -		0	2	6
	2 Kentiſh hammers, at 10s 6d ditto -		0	1	9
	2 ditto, each at 12s 14s 16s ditto -		0	7	0
	1 doz. braſs hat pins - -		0	1	4
	1 doz. ditto, each at 1s 8d-2s 6d -		0	4	2
	2 neat iron fenders, at 4s each -		0	8	0
			1	6	9
	12th.				
10	*Honeſty, Edward,* Cr.				
	By an indorſement on Short and Ready, *London*	20	40	0	0
2	*Amos, William,* London, Dr.				
	To a draught on Short and Ready, *London.*	20	40	0	0
	To diſcount, at 2½ *per cent.* for prompt payment		2	0	0
			42	0	0
	14th.				
2	*Caſh,* Dr.				
	To John Deal, on accompt - -	20	2	2	0
	Obſerve the 4th note of fol. 2.				
2	*Caſh,* Dr.				
	To ſundries - - -	21	5	10	11
7	*Carpenter, Edward,* Dr.				
	To 2 dz. ſingle worm bright gimblets, at 18s *per* gr.	21	0	3	0
	2 doz. *do.* common black *do.* at 9s *do.* -		0	1	6
	1 m. 24d nails - - -		0	17	6
	1 m. 20d ditto - -		0	14	6
	2 m. 12d ditto, at 8s 6d *per* m. -		0	17	0
	2 m. 10d ditto, at 7s 6d ditto -		0	15	0
	3 m. 8d ditto, at 6s 6d ditto -		0	19	6
	4 m. 6d ditto, at 4s 6d ditto -		0	18	0
	6 m. 4d ditto, at 3s 6d ditto -		1	1	0
			6	7	0

Edinburgh, 15th February, 1777.

		Fol	L.	s.	d.
	Caſh, Dr.				
2	To ſundries - - -	21	3	4	0
	17th.				
	Caſh, Dr.				
2	To Edward Carpenter, on accompt -	22	3	0	0
	Thompſon, William, Sheffield, Dr.				
3	To my draught on Paywell and Co. London -	22	9	6	6
	To diſcount of 10 l. 2 s. at $7\frac{1}{2}$ *per cent.* -		0	15	$1\frac{3}{4}$
	To abatement - - -		0	0	$4\frac{1}{4}$
	In full, L.		10	2	0
	Obſerve the ſame inſtructions for poſting this, and all entries like it, as were given on the 22nd January.				
	Vintner, William, Dr.				
10	To 2 pair princes' metal candleſticks, at 14s *per* pr.	22	1	8	0
	1 pair fine ſteel ſnuffers - -		0	3	0
	1 ſtand for ditto - -		0	4	6
			1	15	6
	19th.				
	Architect, Thomas, Dr.				
11	To 2 Kentiſh hammers, ea. at 12s 14s 16s *per* dz.	22	0	7	0
	10 m. 2d. tacks, at 20d. *per* m. -		0	16	8
			1	3	8
	Caſh, Dr.				
2	To ſundries - - -	23	6	11	8
	Ruſtnail, Edward, London, Dr.				
5	To caſh paid his draught on me to *John Dealer*	23	40	15	6
	To abatement - -		0	0	4
			40	15	10
	Note, To poſt this, you muſt firſt *debit* Edward Ruſtnail as above, then *credit* Caſh, By Edward Ruſtnail, paid his draught, *&c.* and mind the folio references.				
	21ſt.				
	Caſh, Dr.				
2	To Edward Honeſty on accompt -	23	25	0	0
	22d.				
	Blackſmith, John, Dr.				
11	To 1 cwt. 1 qr. 18 lb. iron, at 19s *per* cwt. -	23	1	6	$9\frac{1}{2}$
	2 farriers raſps, at 16s *per* doz. -		0	2	8
	2 twelve and a half inch *do.* at 18s *do.* -		0	3	0
			1	12	$5\frac{1}{2}$

Edinburgh, 24th *February*, 1777.

		Fol	L.	s.	d.
	Underwork, Thomas, Sheffield, Dr.				
4	To caſh paid his draught on me to *William Quick*.	24	25	11	0
	⁂ Refer to the *note*, fol. 11.				
	Caſh, Cr.				
2	By freight and carriage of goods -	24	0	18	0
	Simkins, John, Dr.				
8	To 3 nine in. Banbury ſtock locks, at 11s *per* dz.	24	0	2	9
	3 ten inch ditto, at 14s ditto -		0	3	6
	3 eleven inch ditto, at 17s ditto -		0	4	3
	2 twelve inch ditto, at 22s ditto -		0	3	8
	4 foot rules, at 4s ditto -		0	1	4
	4 two feet ditto, at 8s ditto -		0	2	8
	2 gunter's ſcales, at 22d each -		0	3	8
	1 ſix inch japann'd waiter -		0	1	4
	2 eight inch ditto, at 2s 6d each -		0	5	0
	1 ten inch ditto - -		0	3	3
	1 twenty-four inch japann'd tea tray -		1	4	0
			2	15	5
	25th.				
	Goodwill, John, Dr.				
12	To caſh lent *per* promiſſory note, at 1 month -	24	50	0	0
	Woodmonger, Richard, Dr.				
9	To ½ doz plain iron candleſticks, each, at 3s 6d 4s-5s-5s 6d and 6s *per* doz. -	26	0	12	0
	½ doz. braſs ball'd ditto, 5s 6d-6s 6d ditto -		0	9	6
	½ doz. ſecret thumb-lock, at 10s *or* doz. -		0	5	0
	3 ſecret letter-locks, at 18s ditto -		0	4	6
	½ doz. braſs dog collar-locks, 21d ditto -		0	0	10½
	½ doz. ditto, each 2s 3d-3s-4s ditto -		0	4	7½
			1	16	6
	Fairdealer, Joſeph, Dr.				
10	To ½ doz. beaufet cork-ſcrews, at 9s *per* doz. -	26	0	4	6
	½ doz. barrel do. ea. at 6s-7s-8s 6d-10s 6d do.		0	16	0
	½ doz. London razors, at 26s ditto -		0	13	0
	½ doz ditto penknives, at 18s ditto -		0	9	0
	1 etui Morocco pocet-book -		0	10	6
	1 ditto, each, at 12s-14s-17s-19s -		3	2	0
			5	15	0
	Caſh, Dr.				
2	To ſundries - - -	26	2	9	6

Edinburgh, 26th *February* 1777.

		Fol	L.	s.	d.
	Dawſon, Thomas, Eſq; Dr.				
11	To 1 pair horſe piſtols – –	26	2	4	0
	1 pair neat ſcrew barrel ditto –		2	12	6
	1 neat ſilver mounted fowling-piece –		3	13	6
	1 pair neat ſpurs, with ſilver chains –		1	6	0
			9	16	0
	Honeſty, Edward, Dr.				
10	To caſh on accompt, – –	27	10	10	0
	28th.				
	Deal, John, Dr.				
8	To 1 dz. braſs handles, ea. at 3s-4s 6d-5s-6s *per* dz.	27	0	18	6
	½ doz. hat pins, each at 1s 4d-2s-2s 8d ditto		0	3	0
	2 Kentiſh hammers, 14d each –		0	2	4
	½ doz. T. hinges, ea. at 4s 6d-6s *per* doz. –		0	[illegible]	3
	3 pair inſide cheſt ditto, at 8s-9s ditto –		0	[illegible]	3
	6 pair ditto, each at 10s-13s ditto –		0	11	6
	1½ groſs wood ſcrews, at 2s 6d *per* groſs –		0	[illegible]	9
	1 twenty-ſix inch beſt hand ſaw –		0	[illegible]	6
			2	14	1
	Caſh, Dr.				
2	To ſundries – –	27	3	9	8
	Caſh, Cr.				
2	By freight and carriage of goods –	27	0	18	4
	Caſh, Cr.				
2	By houſe expences for this month –	27	6	1	2
	Note, the Caſh-Book muſt now be balanced, according to the directions given the 31ſt January.				
	2nd *March*.				
	Caſh, Dr.				
3	To ſundries – –	27	1	1	0
	Blackſmith, John, Dr.				
11	To 5 cwt. 3 qrs. 4 lb. iron, at 19s *per* cwt. –	28	5	9	11
	3d.				
	Underworth, John, Dr.				
	To 2 pair plated ſhoe buckles, at 2s 9d *per* pair	28	0	5	6
	2 pair ditto, each at 3s-3s 3d-3s 6d ditto –		0	19	6
	2 pair ditto pierc'd, each at 3s 9d-4s ditto		0	15	6
	Carried over		2	0	6

Edinburgh, 3d March, 1777.

		Fol	L.	s.	d.
	Underworth, John, Dr.				
	Brought over	28	2	0	6
9	To 3 paper ſnuff boxes, at 2s 4d each –		0	7	0
	3 ditto, each at 2s 10d-3s 6d ditto –		0	19	0
	4 ditto, at 1s 10d-1s 6d-1s ditto –		0	17	4
	2 toothpick-caſes, at 1s 4d ditto –		0	2	8
	1 ditto – –		0	1	10
			4	8	4
	4th.				
	Plumtree Thomas, Dr.				
9	To 1 doz. ſorted plane irons –	28	0	4	6
	½ doz. ditto gouges, at 5s *per* doz. –		0	2	6
	½ doz. ditto chiſels, at 6s ditto –		0	3	0
	1 carpenter's adz – –		0	4	0
	2 ¾ inch augers, at 10s *per* doz. –		0	1	8
	2 ⅞ inch ditto, at 12s ditto –		0	2	0
			0	17	8
	5th.				
	Wynn, William, Eſq; Dr.				
7	To 2 double doz. ſilver handled knives and forks, at 2l. 12s 6d *per* doz. –	28	5	5	0
	1 ditto deſſerts – –		1	14	0
	1 beſt knife-caſe, ſilver'd furniture –		1	2	0
			8	1	0
	Caſh, Dr.				
3	To John Blackſmith, on accompt –	28	3	3	0
	Caſh, Dr.				
3	To ſundries – –	28	3	12	6
	7th.				
	King, Frederick, Eſq; Dr.				
8	To 1 twenty-four inch beſt japann'd tea-tray –	29	1	6	0
	2 twelve inch ditto waiters, at 4s 6d each –		0	9	0
	2 ſix inch ditto, at 2s ditto –		0	4	0
	1 neat copper urn – –		2	8	0
	1 neat poliſh'd ſnuffer ſtand –		0	7	0
	1 pair ſnuffers – –		0	3	6
			4	17	6
	Caſh, Dr.				
3	To ſundries – –	29	0	12	6
	Caſh, Dr.				
3	To Richard Woodmonger, on accompt –	29	10	10	0

Edinburgh, 7th March, 1777.

		Fol	L.	s.	d.
	Ingleſtone, Captain, Dr.				
10	To 1 twenty inch japann'd tea-tray –	29	0	16	0
	2 eleven inch ditto waiters, at 4s 6d each –		0	9	0
	1 ſix inch ditto – –	30	0	2	0
	2 double doz. ſilver handled knives and forks, 2l 12s 6d *per* doz. – –		5	5	0
	1 double doz. deſſerts – –		1	14	0
	1 beſt knife-caſe, ſilver'd furniture –		1	2	0
			9	8	0
	9th.				
	Nimy, Edward, Dr.				
11	To 1 eight inch common japann'd waiter –	30	0	2	6
	3 eight inch beſt ditto, 2s 10d each –		0	8	6
	2 eleven inch common ditto, 3s 6d ditto –		0	7	0
	2 twelve inch ditto, 3s 9d ditto –		0	7	6
	1 twenty inch beſt tea tray –		0	14	6
	2 twenty inch common ditto, 12s 6d each –		1	5	0
	6 pair common ſciſſors, ea. 8s 10s *per* doz		0	9	0
	3 ſteel watch chains, ea. 10s 16s 24s & 36s *do.*		1	1	6
	½ doz. razor-caſes and ſtraps, 24s ditto –		0	12	0
			5	7	6
	10th.				
	Builder, William, Dr.				
6	To 6 m. 2d. tacks, at 20d *per* m. –	30	0	10	0
	6 m. 3d. ditto, at 2s 3d ditto –		0	13	6
	1 m. 24d. ditto – –		0	17	6
	1 m 20d. ditto – –		0	14	6
	2 m. 12d. ditto, at 8s 6d ditto –		0	17	0
	2 m. 10d. ditto, at 7s 6d ditto –		0	15	0
	6 eleven in. Banbury ſtock locks, at 17s *per* dz.		0	8	6
			4	16	0
	12th.				
	Oliver, George, Dr.				
12	To 3 cards gilt links, at 5s *per* card –	30	0	15	0
	8 cards enamell'd ditto, at 2s 6d ditto –		1	0	0
	1 ſet fire-ſhovel, tongs, and poker –		0	3	6
	2 ſets ditto, each 4s 4d-3s 9d –		0	16	2
	1 ſet ditto – –	31	0	5	3
	2 ivory memorandum-books, 2s each –		0	4	0
	2 ditto, each 2s 6d-3s-3s 6d-4s 6d ditto –		1	7	0
			4	10	11
	Quickpay, Edward, Dr.				
	To 2 doz. crambo combs, at 11s *per* groſs. –	31	0	1	10
	Carried over		0	1	10

Edinburgh, 12th *March*, 1777.

		Fol	L.	s.	d.
	Quickpay, Edward, Dr.				
	Brought over	31	0	1	10
12	To 2 doz. crambo combs, each 14s 17s *per* dz.		0	5	2
	1 doz. tupee ditto – –		0	1	10
	1 doz. buckling ditto –		0	3	0
	3 paper ſnuff boxes, 3s each –		0	9	0
	2 ditto, 3s 8d ditto – –		0	7	4
	1 ditto – –		0	1	3
	2 ditto, 1s 6d ditto –		0	3	0
	2 ditto, 2s ditto – –		0	4	0
	4 tortoiſeſhell toothpicks, at 2s *per* doz. –		0	0	8
	1 pair ſugar nippers –		0	3	0
			2	0	1
	Caſh, Dr.				
3	To ſundries – –	31	4	16	5
	14th.				
	Yelloly, Edward, Dr.				
12	To 3 iron candleſticks, at 3s *per* doz. –	31	0	0	9
	3 ditto each 3s 6d-4s 6d-5s-5s 6d ditto –		0	4	7½
	3 braſs ball'd ditto, each 4s 6d-5s 6d ditto –		0	2	6
	½ doz. ſecret thumb locks, 9s ditto –		0	4	6
	3 letter locks, 16s ditto –		0	4	0
	6 braſs dog collar locks, 2s 4d ditto –		0	1	2
	6 ditto, each 2s 10d-3s 6d ditto –		0	3	2
			1	0	8½
	Caſh, Dr.				
3	To ſundries – –	32	2	14	2
	Yeomans, Joſeph, Dr.				
12	To ½ doz. five barr'd tinn'd curry combs, at 7s 6d *per* doz – –	32	0	3	9
	½ doz. ſix barr'd ditto, at 8s 6d ditto –		0	4	3
	½ doz. round iron ditto, at 3s 9d ditto –		0	1	10½
	3 bruſhes, 10d each – –		0	2	6
	9 m. 2d tacks, at 18½d. *per* m.		0	13	10½
	8 m. 3d ditto, at 2s 1½d. ditto –		0	17	0
	10¾ m. 4d ditto, at 3s 4d ditto –		1	15	10
	7 m. 6d ditto, at 4s 4d ditto –		1	10	4
			5	9	5
	15th.				
	Caſh, Dr.				
3	To ſundries = =	32	2	13	0

Edinburgh, 15th *March*, 1776.

		Fol	L.	s.	d.
	Friend, John, Dr.				
6	To 2 pair princes' metal pillar candleſticks, at 18s *per* pair. – –	32	1	16	0
	16th.				
	Deal, John Dr.				
8	To 1 ſix inch two bolt braſs knob lock –	32	0	3	3
	2 eight inch ditto, at 5s 9d each –		0	11	6
	2 nine inch ditto, at 8s 6d ditto –		0	17	0
			1	11	9
	Builder, William, Dr.				
6	To ½ doz. inſide cheſt hinges, at 8s *per* doz. –	33	0	4	0
	½ doz. ditto, each 9s 10s 13s ditto –		0	16	0
	1 doz. braſs handles and plates –		0	4	0
	1 doz. ditto, each 4s 6d-5s-6s ditto –		0	15	6
	½ doz. cut cupboard locks, each 6s-7s 6d –		0	6	9
	½ doz. bright cheſt ditto, each 12s-14s –		0	13	0
			2	19	3
	Caſh, Dr.				
3	To ſundries – – –	33	2	6	3
	18th.				
	Caſh, Dr.				
3	To ſundries – –	33	4	19	6
	19th.				
	Architect, Thomas, Dr.				
11	To ſundries – –	33	6	6	5
	Carpenter, Edward, Dr.				
7	To ſundry articles –	34	2	13	0
	Caſh, Dr.				
3	To ſundries – –	34	0	18	0
	Fairdealer, Joſeph, Dr.				
10	To ſundry articles –	34	3	0	0
	21ſt.				
	Caſh, Dr.				
3	To ſundries – –	34	7	18	6
	23d.				
	Honeſty, Edward, Cr.				
10	By a draught on Meſſrs. Hinton and Co. *London.*	34	50	0	0
	Wickam, Thomas, Eſq; Dr.				
6	To ſundry articles – –	35	10	15	0

Edinburgh, 24th *March*, 1777.

		Fol	L.	s.	d.
	Everet, Humphry, Dr.				
4	To my draught on Meſſrs. Paywell and Co. –	35	140	7	0
	King, Frederick, Eſq; Dr.				
8	To 1 neat Morocco pocket book –	35	1	2	0
	Caſh, Dr.				
3	To ſundries – –	33	0	19	10
	25th.				
	Longſide, Abel, Dr.				
5	To a draught on Meſſrs. Hinton and Co. *London*	35	50	0	0
	To diſcount for prompt payment –		2	10	0
			52	10	0
	Caſh, Dr.				
3	To John Goodwill, received in full of his *promiſſory note* –	36	50	0	0
	Caſh, Dr.				
3	To ſundries –	36	18	17	0
	26th.				
	Underwork, Thomas, Sheffield, Dr.				
4	To my draught on Meſſrs. Paywell and Co.	36	34	1	6
	27th.				
	Ninny, Edward, Dr.				
11	To ſundry articles –	36	12	10	2½
	28th.				
	Caſh, Dr.				
3	To John Simkins, on accompt –	37	2	2	0
	Underworth, John, Dr.				
9	To ſundry articles –	37	2	6	6
	Caſh, Dr.				
3	To Edward Carpenter, on accompt –	37	2	2	0
	31ſt.				
	Caſh, Dr.				
3	By ſundries –	37	21	18	3
	Caſh, Dr.				
3	To ſundries – –	37	16	6	2

End of the JOURNAL.

LEDGER.

THE ALPHABET

A.			G.		
*		*Fol.*			*Fol.*
Amos, William	–	2	Goodwill, John	–	12
Architect, Thomas	–	11			
B.			**H.**		
		Fol.			*Fol.*
Bennet, Adam	–	3	Hardſide, William	–	4
Builder, William	–	6	Honeſty, Edward	–	10
Blackſmith, John	–	11	Hibernian, Joſeph	–	12
Balance	–	13			
C.			**I.**		
		Fol.			*Fol.*
Caſh	–	1	Ingleſtone, Captain	–	10
Carpenter, Edward	–	7			
D.			**K.**		
		Fol.			*Fol.*
Darling, Henry	–	3	King, Frederick, Eſq;	–	8
Deal, John	–	8			
Dawſon, Thomas Eſq:		11			
E.			**L.**		
		Fol.			*Fol.*
Evans, Edward	–	3	Longſide, Abel	–	5
Everet, Humphry	–	4			
F.			**M.**		
		Fol.			*Fol.*
Friend, John	–	6	Metal, Joſeph	–	2
Fairdealer, Joſeph	–	10			

* It is cuſtomary, beſides the name, to inſert the deſignation and place of abode; as, Amos, William, *Ironmonger* London, fol. 2.

N.

	Fol.
Ninny, Edward –	11

O.

	Fol.
Oliver, George –	12

P.

	Fol.
Poliſh, Thomas –	1
Paywell Meſſrs. and Co. –	5
Plumtree, Thomas –	9

Q.

	Fol.
Quickpay, Edward –	12

R.

	Fol.
Ruſtnail, Edward –	5

S.

	Fol.
Stock – –	1
Screwfaſt, Andrew –	4
Simkins, John –	8

T.

	Fol.
Thompſon, William –	3
Thorogood, William, Eſq;	7

U & V.

	Fol.
Underwork, Tho. *Sheffield*,	4
Underworth, John –	9
Vintner, William –	10

W.

	Fol.
Wickam, Thomas, Eſq; –	6
Woodman, William –	7
Wynn, William –	7
Woodmonger, Richard –	9

X.

Fol.

Y.

	Fol.
Yelloly, Edward –	12
Yeomans, Joſeph –	12

Z.

Fol.

Dr. Cash. Cr.

1777.		Fol	L.	s.	d.	1777.		Fol	L.	s.	d.
Jan. 1.	To ſtock	1	1000	0	0	Jan.	By ſundry accompts paid this month		507	10	1
31.	To ſundry accompts rec'd this month		36	14	1	Feb.	By ditto ditto		234	14	0
Feb.	To ditto ditto		57	17	7	March.	By ditto ditto		21	1	3
March.	To ditto ditto		135	11	10	April.	By ditto ditto		80	6	3
April.	To ditto ditto		338	8	2		By balance remaining in hand	13	725	0	1
			1568	11	8				1568	11	8

Note, If any caſh remain in hand, as above, it muſt be placed on the Cr. ſide, and then put on the Dr. ſide of *balance*.

1777 Dr. Stock. 1777. Cr.

April 30.	To balance, the neat of my eſtate	13	1100	0	1½	Jan. 1.	By caſh	1	1000	0	0
						April 30.	By profit and loſs gain'd by four months trading		100	0	1½
			1100	0	1½				1100	0	1½

Note, The above entry is extracted from the Cr. ſide of Balance, being the remainder of what you owe, taken from the ſum of your caſh, goods, and book debts.

Note, The *firſt* line on this ſide, is what you began trade with; and the *ſecond* is what you have gain'd ſince the 1ſt January laſt: conſequently their *ſum* is your preſent ſ

1777. Dr Mr. Thomas 1777. Poliſh, *London* Cr.

April 30.	To balance due	13	29	5	8	Jan. 3.	By goods	3	12	3	0
						Feb. 21.	By ditto	10	17	2	8
			29	5	8				29	5	8
						April 30.	By balance due as *per contra*	13	29	5	8

Note, This accompt is balanced in the ſame manner as the laſt.

Dr. Mr. William

1777.		Fol	L.	s.	d.
Feb. 12.	To a draught on Short and Ready	10	40	0	0
	To discount for prompt payment		2	0	0
April 30.	To balance due -	13	26	0	4½
			68	0	4½

Note, 1. The last line on this side is put to make it equal to the Cr. side.
2. When the Dr. side exceeds the Cr. the *person* is indebted to *you*; but if the Cr. exceed the Dr. (as in this accompt) you are indebted to *him*.

Amos, *London*. Cr.

1777.		Fol	L.	s	d.
Jan. 1.	By goods	2	37	7	8½
14.	By ditto	8	6	14	8
Feb. 18.	By ditto -	9	23	18	0
			68	0	4½
April 30.	By balance due as *per contra* -	13	26	0	4½

Note, 1. To balance any man's accompt, add up both sides; subtract the less from the greater, and place the difference under the less side, which will make them both equal.
2. When the Cr. side exceeds the Dr. after you have placed the difference on the Dr. side, you must bring it to the Cr. as above.

Dr. Mr. Joseph

Note, 4. Although the two last accompts are balanced in the general method, yet I have known some tradesmen, who, when there is an accompt, wherein one side only is *debited* or *credited*, as in *this*, to balance it as on the other side: which method in Single Entry will be found to be the best: and if there be one Entry only, on either side, let it stand, placing *B* for balance before the folio column.

Metal, *London*, Cr.

1777.		Fol	L.	s	d.
Jan. 3.	By goods -	3	24	4	4
Feb. 20.	By ditto -	10	23	9	5½
April 30.	By balance due -	13	47	13	9½

Note, 2. It is not absolutely necessary to follow either of these methods in Single Entry: The sum or difference of the Dr. and Cr. side may be ascertained, and carried immediately to balance, without closing the accompts.

1777.	Dr. Mr. Adam	Fol	L.	s.	d.
Jan. 10.	To my draught on Paywell and Co.	5	8	10	6
	To disc. of 9l. 9s. 7½d. at 10 *per cent.*		0	18	11½
	To abatement - -		0	0	2
			9	9	7½

1777.	Dr. Mr. William		L.	s.	d.
Feb. 17.	To my draught on Paywell and Co.	5	9	6	6
	To disc. of 10l. 2s. at 7½d *per cent.*		0	15	1¾
	To abatement - -		0	0	4¼
			10	2	0

1777.	Dr. Mr. Edward		L.	s.	d.
Feb. 5	To a bill on Cook and Co. London	8	33	9	0
	To disc. at 2½ *per cent.* of 14l. 6s. 6d.		0	17	2
	To abatement - -		0	0	4
			34	6	6

1777.	Dr. Mr. Henry		L.	s.	d.
Apr. 20.	To cash paid his draught on me, to Thomas Truepenny -	4	40	0	6
			40	0	6

1777.	Bennet, *Sheffield.* Cr.	Fol	L.	s.	d.
Jan. 3.	By goods - - -	4	9	9	7½
			9	9	7½

1777.	Thompson, *Sheffield.* Cr.		L.	s.	d.
Jan. 4.	By goods - - -	4	10	2	0
			10	2	0

1777.	vans, *London.* Cr.		L.	s.	d.
Jan. 4.	By goods - -	5	34	6	6
			34	6	6

1777.	Darling, *London.* Cr.		L.	s.	d.
Jan. 4.	By goods - -	5	15	11	3
Feb. 10.	By ditto - -	9	10	0	9
Mar. 7.	By ditto - -	11	14	8	6
			40	0	6

Dr. Mr. Humphry	Fol	L.	s.	d.
1777.				
Jan. 11. To my draught on Paywell and Co.	5	47	15	0
To abatement - -		0	0	4½
		47	15	4½
Mar. 24. To my draught on Paywell and Co.	5	140	7	0

Dr. Mr. William	Fol	L.	s.	d.
1777.				
April 16. To cash paid his draught on me, to James Ray - -	4	33	11	6
To abatement - -		0	0	1
		33	11	7

Dr. Mr. Andrew	Fol	L.	s.	d.
1777.				
April 9. To an indorsement on Messrs. Bywell and Company, *London* -	42	33	0	0
To disc. of 33l. 17s. at 2½ *per cent.*		0	17	0
		33	17	0

Dr. Mr. Thomas	Fol	L.	s.	d.
1777.				
Feb. 24 To cash paid his draught on me, to William Quick -	2	25	11	0
Mar. 26. To my draught on Paywell and Co.	5	34	1	6

Everet, *Newcastle*, Cr	Fol	L.	s.	d.
1777.				
Jan. 4. By goods - - -	5	47	15	4½
		47	15	4½
Mar. 3. By goods - - -	11	140	7	0

Hardside, *London*, Cr.	Fol	L.	s.	d.
1777.				
Jan. 4. By goods - -	6	23	13	9
Feb. 4. By ditto - - -	8	9	17	10
		33	11	7

Screwfast, *London*. Cr.	Fol	L.	s.	d.
1777.				
Jan. 6. By goods - -	7	33	17	0
		33	17	0

Underwork, *Sheffield*. Cr.	Fol	L.	s.	d.
1777.				
Jan. 21. By goods - -	8	25	11	0
Mar. 5 By goods - -	11	34	1	6

Dr. Mr. Abel

1777.		Fol	L.	s.	d.
Mar. 25.	To a draught on Hinton and Co.	18	50	0	0
	To diſcount for prompt payment		2	10	0
	To balance due - -	13	4	2	0
			56	12	0

Longſide, *London.* Cr.

1777.		Fol	L.	s.	d.
Jan. 6.	By goods - - -	7	32	14	0
Mar. 2.	By ditto - - -	11	23	18	0
			56	12	0
Apr. 30.	By balance due as *per contra*	13	4	2	0

Dr. Mr. Edward

1777.		Fol	L.	s.	d.
Feb. 19.	To caſh paid his draught on me, to John Dealer - -	2	40	15	6
	To abatement - -		0	0	4
			40	15	10
	Note. See the Dr. ſide of Joſeph Metal's accompt, folio 2.				

Ruſtnail, *London* Cr.

1777.		Fol	L.	s.	d.
Jan. 7.	By goods - -	7	40	15	10
			40	15	10
Apr. 28.	By goods - - *B*	12	18	17	10

Drs. Meſſrs. Paywell and Co.

1777.		Fol	L.	s.	d.
Jan. 6.	To caſh lent *per* promiſſory note	1	500	0	0
			500	0	0

Bankers, *London* Crs.

1777.		Fol	L.	s.	d.
Jan. 10.	By my draught to Adam Bennet	3	8	10	6
11.	By ditto to Humphry Everet	4	47	15	0
Feb. 17.	By ditto to William Thompſon	3	9	6	6
Mar. 24.	By ditto to Humphry Everet -	4	140	7	06
26.	By ditto to Thomas Underwork	4	34	1	6
April 1.	By ditto to Edward Honeſty -	10	100	0	00
23.	By ditto to ditto - - -	10	130	0	0
29.	By caſh for ditto to William Amicable	4	29	19	6
			500	0	0

Dr. Mr. John Friend, Cr.

1777.		Fol	L.	s.	d.
Jan. 13.	To goods	3	2	13	0
22.	To ditto	5	1	1	0
			3	14	0
Mar. 15.	To goods B.	17	1	16	0

1777.		Fol	L.	s.	d.
Jan. 24.	By cash, received in full	1	3	14	0
			3	14	0

Dr. Mr. William Builder, Cr.

1777.			L.	s.	d.
Jan. 13	To goods	3	0	10	9
17	To ditto	4	1	0	11
			1	11	8
Feb. 7.	To goods	9	0	9	10½
11.	To ditto	10	1	6	9
Mar. 10.	To ditto	15	4	16	0
16.	To ditto	17	2	19	3
April 7.	To ditto	41	10	2	6
			19	14	4½

1777.		Fol	L.	s.	d.
Jan. 24.	By cash, received in full	1	1	11	8
			1	11	8
April 7.	By cash on accompt	4	4	0	0
28.	By ditto	4	15	14	0
	By abatement		0	0	4½
			19	14	4½

Dr. Thomas Wickham, Esq; Cr.

1777.		Fol	L.	s.	d.
Jan. 14.	To goods	4	3	2	6
24	To ditto	5	5	8	0
29	To ditto	7	2	2	0
			10	12	6
Mar. 23.	To goods B.	17	10	15	0

1777.		Fol	L.	s.	d.
Jan. 29.	By cash, received in full	1	10	12	6
			10	12	6

Dr. Mr. Edward Carpenter, Cr.

1777.		Fol	L.	s.	d.	1777.		Fol	L.	s.	d.
Jan. 15.	To goods	4	3	2	0	Feb. 17.	By cash, on account	2	3	0	0
25.	To ditto	6	0	10	9	Mar. 28.	By ditto	3	2	2	0
Feb. 14.	To ditto	10	6	7	0	April 15.	By ditto	4	4	4	0
Mar. 19.	To ditto	17	2	13	0	28.	By ditto, in full	4	3	6	9
			12	12	9				12	12	9

Dr. William Thorogood, Esq; Cr.

1777.		Fol	L.	s.	d.	1777.		Fol	L.	s.	d.
Jan. 20.	To goods	4	4	9	0	April 27.	By cash, in full	4	12	16	0
April 4.	To ditto	39	8	7	0				12	16	0
			12	16	0						

Dr. Mr. William Woodman, Cr.

1777.		Fol	L.	s.	d.
Jan. 22.	To goods	5	0	9	11
April 6.	To ditto	40	10	0	11
	To balance due	13	10	10	10

Dr. William Wynn, Esq; Cr.

1777.		Fol	L.	s.	d.	1777.		Fol	L.	s.	d.
Jan. 25.	To goods	6	4	1	0	April 22.	By cash, in full	4	12	2	0
Mar. 5.	To ditto	14	8	1	0				12	2	0
			12	2	0						

Dr. Mr. John Simkins, Cr.

Dr. Mr John Simkins, Cr.

1777.		Fol	L.	s.	d.	1777.		Fol	L.	s.	d.
Jan. 24.	To goods	5	2	3	9	Jan. 4.	By cash on accompt	1	2	2	0
Feb. 24.	To ditto	12	2	15	5		By balance due	13	12	12	10
April 2.	To ditto	39	9	15	8						
			14	14	10				14	14	10
April 30.	To balance due as *per contra*	13	12	12	10						

Dr. Frederick King, Esq; Cr.

1777.		Fol	L.	s.	d.	1777.		Fol	L.	s.	d.
Jan. 24.	To goods	6	1	7	6	April 7.	By cash, in full	4	7	7	0
Mar. 7.	To ditto	14	4	17	6						
24.	To ditto	18	1	2	0						
			7	7	0				7	7	0

Dr. Mr John Deal, Cr.

1777.		Fol	L.	s.	d.	1777.		Fol	L.	s.	d.
Feb. 1.	To goods	7	1	11	7	Feb. 14.	By cash on accompt	1	2	2	0
8.	To ditto	9	1	4	0	April 8.	By ditto	4	2	0	0
28.	To ditto	13	2	14	1	28.	By ditto	4	10	8	0
Mar. 16.	To ditto	17	1	11	9		By abatement		0	0	5
April 8.	To ditto	41	3	12	6						
25.	To ditto	46	3	16	6						
			44	10	5				14	10	5

Dr. Mr John Underworth, Cr.

1777.		Fol	L.	s.	d.	1777.		Fol	L.	s.	d.
Jan. 28.	To goods -	6	3	0	0	April 8.	By cash, in full -	4	9	14	10
March 3.	To ditto -	14	4	8	4						
28.	To ditto -	18	2	6	6						
			9	14	10				9	14	10

Dr. Mr Thomas Plumtree, Cr.

1777.		Fol	L.	s.	d				L.	s.	d.
Jan. 29.	To goods -	6	1	18	5						
March 4.	To ditto -	14	0	17	8						
April 20.	To ditto -	45	35	5	4						
	To balance due -	13	38	1	5						

Dr. Mr Richard Woodmonger, Cr.

1777.		Fol	L.	s.	d.	1777.		Fol	L.	s.	d.
Feb. 3.	To goods -	8	19	10	3¾	Mar. 7.	By cash on accompt -	3	10	10	0
25.	To ditto -	12	1	16	6	April 14.	By ditto -	4	5	5	0
April 2.	To ditto -	39	47	19	8	April 30.	By balance due -	13	53	11	5¾
			69	6	5¾				69	6	5¾
	To balance due as *per contra* -	13	53	11	5¾						

Dr. Mr. William Vintner, Cr.									
1777.		Fol	L.	s.	d.			Fol	L. s. d.
Feb. 5.	To goods	8	5	0	0				
17.	To ditto	11	1	15	6				
	To balance due	13	6	15	6				

Dr. Mr. Edward Honesty, Cr.									
1777.			L.	s.	d.	1777.			L. s. d.
Feb. 5.	To cash	2	100	0	0	Feb. 5.	By a bill on Cook and Co. *London*	8	33 9 0
26.	To ditto	2	10	0	0	12.	By ditto on Short and Ready, ditto	10	40 0 0
April 1.	To my draught on Paywell and Co.	5	100	0	0	21.	By cash	2	25 0 0
23.	To ditto on ditto	5	130	0	0	Mar. 23.	By a bill on Hinton and Co. *London*	17	50 0 0
						April 9.	By ditto on Bywell and Co. ditto	41	33 0 0
						23.	By cash	4	150 0 0
						28.	By ditto	4	9 1 0
			340	10	0				340 10 0

Dr. Mr. Joseph Fairdealer, Cr.									
1777.			L.	s.	d.				
Feb. 5.	To goods	9	7	8	2				
25.	To ditto	12	5	15	0				
Mar. 19.	To ditto	17	3	0	0				
Apr. 30.	To balance	13	16	3	2				

Dr. Captain Ingleſtone, Cr.									
1777.			L.	s.	d.				
Mar. 7.	To goods B.	15	9	8	0				

	Dr. Thomas	Fol	L.	s.	d.
1777.					
Feb. 8.	To goods	9	2	4	6
26.	To ditto	13	9	16	0
Apr. 30.	To balance due	13	12	0	6

	Dawson, Esq; Cr.	Fol	L.	s.	d.

	Dr. Mr. Thomas		L.	s.	d.
1777.					
Feb. 10.	To goods	10	4	17	8
19.	To ditto	11	1	3	8
Mar. 19.	To ditto	17	6	6	5
Apr. 30.	To balance due	13	12	7	9

	Architect, Cr.				

	Dr. Mr. John		L.	s.	d.
1777.					
Feb. 22.	To goods	11	1	12	5½
Mar. 2.	To ditto	13	5	9	11
Apr. 16.	To ditto	44	7	7	2
			14	9	6½
Apr. 30.	To balance due as *per contra*		8	3	6½

	Blacksmith, Cr.	Fol	L.	s.	d.
1777.					
Mar. 5.	By cash on accompt	3	3	3	0
Apr. 16.	By ditto	4	3	3	0
30.	To balance due	13	8	3	6½
			14	9	6½

1777.	Dr. Mr. Edward		L.	s.	d.
Mar. 9.	To goods	15	5	7	6
27.	To ditto	18	12	10	2½
Apr. 30.	To balance due	13	17	17	8½

	Ninny, Cr.				

1777.	Dr. Mr John	Fol	L. s. d.
Feb. 25.	To cash lent *per* promissory note, at 1 month -	2	50 0 0

1777.	Goodwill Cr.	Fol	L. s. d.
Mar 25.	By cash, in full -	3	50 0 0

1777.	Dr. Mr George		L. s. d.
Mar. 12.	To goods - B.	15	4 10 11

1777.	Oliver, Cr.		L. s. d.

1777.	Dr. Mr. Edward		L. s. d.
Mar. 12.	To goods -	16	2 0 1
April 9.	To ditto -	42	4 0 7
30.	To balance due -	13	6 0 8

1777.	Quickpay, Cr.		L. s. d.
			6 9 8

1777.	Dr. Mr Edward		L. s. d.
Mar. 14.	To goods -	16	1 0 8½
April 14.	To ditto -	44	6 8 3
30.	To balance due -	13	7 8 11½

1777.	Yelloly, Cr.		L. s. d.

1777.	Dr. Mr. Joseph		L. s. d.
Mar. 14.	To goods - B.	16	5 9 5

1777.	Yeomans, Cr.		L. s. d.

1777.	Dr. Mr Joseph		L. s. d.
April 11.	To goods -	43	31 2 6

1777.	Hibernian, *Dublin*, Cr.		L. s. d.
April 23.	By cash for my draught on him to Knobs & Merry, exchange for 34l.	4	31 2 6

Dr Balance,	Fol	L.	s.	d.	1777.	Cr.	Fol	L.	s.	d.
1777. April 30. To cash remaining in hand -		725	0	1	April 30.	By Thomas Polish, due to him -	1	29	5	8
To goods ditto at prime cost -		249	4	0¼		By William Amos, ditto -	2	26	0	4½
To John Friend due to me -	6	1	16	0		By Joseph Metal, ditto -	2	47	3	9½
To Thomas Wickam, Esq; ditto	6	10	15	0		By Abel Longside, ditto -	5	4	2	0
To William Woodman, ditto	7	10	10	10		By Edward Rustnail, ditto -	5	18	17	10
To John Simkins, ditto -	8	12	12	10						
To Thomas Plumtree, ditto -	9	38	1	5						
To Richard Woodmonger, ditto	9	53	11	5¾						
To William Vintner, ditto -	10	6	15	6						
To Joseph Fairdealer, ditto -	10	16	3	2						
To Captain Ingleston, ditto	10	9	8	0						
To Thomas Dawson, Esq; ditto	11	12	0	6						
To Thomas Architect, ditto	11	12	7	9						
To John Blacksmith, ditto	11	8	3	6½						
To Edward Ninny, ditto	11	17	17	8½						
To George Oliver, ditto	12	4	10	11						
To Edward Quickpay, ditto	12	6	0	8						
To Edward Yelloly, ditto	12	7	8	11½						
To Joseph Yeomans, ditto	12	5	9	5						
To sundry persons, collected from the *brought forward accompts* in the Waste Book, ditto =	48	18	2	0		By stock for the neat of my estate	1	1100	0	1½
		1225	19	9½				1225	19	9½

Note, I.

Note, 1. When you want to know the ſtate of your affairs, whether you have gained or loſt, or whether you be worth any thing or nothing; after having prepared a *balance-ſheet* like this, take an account of your ready money and bank-notes, which ſhould likewiſe be reckoned as *caſh*; then value all the goods in your warehouſe at prime coſt, ſetting down the ſum-total as above. The next thing is, to balance every man's accompt in the Ledger, according to the directions heretofore given, beginning with the firſt. Thoſe who are indebted to you, muſt be put on the Dr. ſide of *balance*, mentioning in what ſum; and thoſe to whom you are indebted on the Cr. ſide thereof, with their amount likewiſe.

2. Add up each ſide of your *balance accompt* ſeparately; and if the Dr. ſide exceed the Cr. ſubtract *this* from *that*, and the difference will be what you are worth, or your *neat ſtock*; but if the Cr. ſide be more than the Dr. the difference is againſt you, and you are ſo much *worſe than nothing*.

3. In book-keeping by ſingle entry, there is no need to open an accompt of *profit and loſs*; for, by my hypotheſis, I began trade with 1000 l. ſtock, which, by the other ſide, you will find to be increaſed to L. 1100: 0 : $1\frac{1}{2}$. I have therefore gain'd the difference, *viz*. L. 100 : 0 $1\frac{1}{2}$, which I carry, and ſo muſt you, to the Cr. ſide of *ſtock*, to balance that accompt.

4. Thoſe perſons who do not chuſe to go through the whole four months accompts, may balance at the end of three, as, from a nice calculation, I can inform them, that the goods which remain on hand, on the 31ſt March, amount to L. 378 12 : 0, and the caſh L. 466 : 18 : 2, as may be ſeen by the Caſh-book, fol. 3.

End of the LEDGER.

CASH-BOOK.

[1]

Dr. Cash,

1777.		Fol	L.	s.	d.
Jan. 1.	To ſtock	1	1000	0	0
13.	To ſundries		6	4	3
24.	To John Friend, received in full	6	3	14	0
	To William Builder, ditto	6	1	11	8
29.	To ſundries		6	10	8
31.	To Thomas Wickam, Eſq; in full	6	10	12	6
	To ſundries		8	1	0
			1036	14	1

Note, 1. As the Dr. ſide of this accompt contains all the money you have received this month, the ſeveral ſums muſt be added up, and carried to the Dr. ſide of *Caſh* in the Ledger; but becauſe the firſt line of this ſide is what you had to begin trade with, it muſt not be added to the others.

2. The *figures* in the *columns* preceding the money, mark in what *folio* of the Ledger thoſe perſons accompts are entered.

Cr.

1777.		Fol	L.	s.	d.
Jan. 6.	By Meſſrs. Paywell and Co.	5	500	0	0
	By freight and carriage of goods		0	3	6
8.	By ditto		0	2	6
10.	By ditto		0	1	8
11.	By ditto		1	15	6
25.	By ditto		0	7	6
31.	By ſundries		4	19	5
	By balance in hand, carried to the next month		529	4	0
			1036	14	1

Note, 1. Before you balance the caſh which remains in hand, add up all the ſums paid away on *this* ſide, and carry them to the Cr. ſide of the *Ledger*.

2. Find the ſum remaining in hand, by the directions given at fol. 1. in the Ledger; and write down the laſt line, as above, and carry the balance to the next month's accompt.

3. When Caſh is Dr. or Cr. *To* or *By ſundries*, it is not neceſſary, in ſingle entry, to place any reference figure which could only refer to the Journal.

Dr. Caſh.

1777.		Fol	L.	s.	d.
Feb. 1.	To balance in hand, brought from the laſt month	1	529	4	0
	To ſundries		0	13	0
3.	To ditto		0	10	0
Errour. 5.	To Edward Honeſty	10	100	0	0
	To ſundries		5	6	10
14.	To John Deal on accompt	8	2	2	0
	To ſundries		5	10	11
15.	To ditto		3	4	0
17.	To Edward Carpenter on accompt	7	3	0	0
19.	To ſundries		6	11	8
21.	To Edward Honeſty on accompt	10	25	0	0
25.	To ſundries		2	9	6
28.	To ditto		3	9	8
			687	1	7

Note, 1. The 4th entry on this ſide, marked *Errour*, is put expreſly to ſhew the ſcholar how to correct one in a ſimilar caſe. *See the Cr. ſide.*

2. Add up the money received this month, and carry it to the Dr. ſide of the Ledger, as before.

Cr.

1777.		Fol	L.	s.	d.
Feb. 5.	By *errour* as *per contra*		100	0	0
	By Edward Honeſty	10	100	0	0
19.	By Edward Ruſtnail, paid his draught on me to John Dealer	5	40	15	6
24.	By Thomas Underwork, paid his draught on me to William Quick	4	25	11	0
	By freight and carriage of goods		0	18	0
25.	By John Goodwill, lent him *per* promiſſory note	12	50	0	0
26.	By Edward Honeſty	10	10	10	0
28.	By freight and carriage of goods		0	18	4
	By houſe expences for this month		6	1	2
	By balance in hand carried to the next month	13	352	7	7
			687	1	7

Note, 1. The *firſt* line on this ſide is put to balance the *errour* on the Dr. ſide.

2. Add up all the money on this ſide, except the firſt line, and carry the ſum total to the Cr. ſide of the *Ledger*.

3. Find the caſh which remains in hand, and carry the balance to the next month.

CASH BOOK.

Dr. Cash.

1777.		Fol	L.	s.	d.
March.	To balance in hand, brought from the last month	2	352	7	7
2.	To sundries		1	1	0
5.	To John Blacksmith on accompt	11	3	3	0
	To sundries		3	12	6
7.	To ditto		0	12	6
	To Richard Woodmonger on accompt	9	10	10	0
12.	To sundries		4	16	5
14.	To ditto		2	14	2
15.	To ditto		2	13	0
16.	To ditto		2	6	3
18.	To ditto		4	19	6
19.	To ditto		0	18	0
21.	To ditto		7	18	6
24.	To ditto		0	19	10
25.	To John Goodwill, in full	12	50	0	0
	To sundries		18	17	0
28.	To John Simkins on accompt	8	2	2	0
	To Edward Carpenter, ditto	7	2	2	0
31.	To sundries		16	6	2
			487	19	5

Cr.

1777.		Fol	L.	s.	d.
Mar. 31.	By freight and carriage of goods		1	8	3
	By a quarter's salary paid Edward Trusty		7	10	0
	By a quarter's rent of my house		6	0	0
	By house expences for this month		5	3	0
	By a quarter's wages paid my house keeper		1	0	0
	By balance in hand, carried to the next month	4	466	18	2
			487	19	5

Dr. Cash.

1777.		Fol	L.	s.	d
April.	To balance in hand brought from the last month -	3	466	18	2
2	To sundries - -		2	5	10
4.	To ditto - -		1	10	6
7.	To Frederick King, Esq; in full	8	7	7	0
	To William Builder, on accompt	6	4	0	0
8.	To John Underworth, in full	9	9	14	10
	To John Deal, on accompt -	8	2	0	0
9.	To sundries -		3	2	0
11.	To ditto - -		2	0	0
14.	To Richard Woodmonger, on accompt	9	5	5	0
15.	To Edward Carpenter, ditto	7	4	4	0
16.	To John Blacksmith, on accompt	11	3	3	0
	To sundries - -		4	7	4
20.	To sundries - -		0	19	6
22.	To William Wynn, Esq; in full	7	12	2	0
23.	To sundries - -		9	12	3
	To Joseph Hibernian, for my draught on him to Knobs and Merry, exchange for 34l.	12	31	2	6
25.	To Edward Honesty, on accompt	10	150	0	0
27.	To William Thorogood, Esq; in full	7	12	16	0
28.	To Edward Carpenter, in full	7	3	6	9
	To William Builder, ditto	6	15	14	0
	To John Deal, ditto	8	10	8	0
	To Edward Honesty, ditto	10	9	1	0
29.	To Messrs. Paywell and Co. for my draught to William Amicable	5	29	19	6
	To sundries - -		0	13	4
30.	To ditto - -		3	13	10
			805	6	4

Cr.

1777.		Fol	L.	s.	d.
April 16.	By William Hardside, paid his draught on me to James Ray -	5	33	11	6
20.	By Henry Darling, paid his draught on me to Thomas Truepenny	4	6	14	3
30.	By house expences for this month				
	By balance remaining in hand	13	725	0	1
			805	6	4

CASH-BOOK.

TILL-BOOK.

Edinburgh, Friday, 1ſt *April,* 1777.

	L.	s.	d.
2 groſs wood ſcrews, at 2s 6d *per* groſs	0	5	0
½doz. T. hinges, at 3s 2d *per* doz - -	0	1	7
½ doz. ditto, at 3s 8d ditto - -	0	1	10
1 ſix in. rim lock 3s 3d–1 ſeven. in. do. 4s 2d	0	7	5
1 ſet black buckles - - -	0	2	0
1 doz. crambo combs - - -	0	1	0
L.	0	18	10

Saturday, 2d *April,* 1777.

1 pit ſaw - -				1	7	0
	L.	s.	d.		
Friday -	0	18	10		
Saturday - -	1	7	0		
Entered				2	5	10

Monday, 4th *April,* 1777.

	L.	s.	d.
1 five barr'd curry comb 9 d. 1 ditto 5 d.	0	1	2
1 bruſh - - - -	0	1	0
1 m. 2d tacks 1 s. 8 d. 1 m. 3 d. ditto 2 s. 3 d. -	0	3	11
L.	0	6	1

Tueſday, 5th *April,* 1777.

		L.	s.	d.
	1 pair bellows - - -	0	2	0
	1 pair boot ſtraps - - -	0	1	9
	1 fine ſteel watch chain - - -	0	2	6
Love-work*.	1 pair fine women's ſciſſors - -	0	5	0
	L.	0	11	3

* Shopkeepers often put down in the margin, the perſon's name to whom goods have been ſold. They likewiſe affix the private mark to them: So that if the ſame perſons ſhould want the ſame article again, the tradeſman can refer to his book, and ſee both the prime coſt and the price ſold for. By which means, he can help them to the very identical articles, and charge them at the ſame prices.

Wednesday, 6th *April*, 1777.

		L.	s.	d.
Dods.	1 neat Morocco pocket-book -	0	11	0
	1 ſix barr'd curry comb -	0	0	10
	1 pair pinchbeck ſhoe buckles	0	2	0
		L. 0	13	10

Thurſday, 7th *April*, 1777.

	L.	s.	d.
1 tea bell 1s 6d–1 iron fender 3s -	0	4	6
1 ſet fire ſhovel, tongs and poker -	0	3	6
2 qrs. 18 lb. Siberia iron, at 2d *per* lb -	0	12	4
1 inch auger - -	0	1	6
	L. 1	1	10

Saturday, 9th *April*, 1777.

	L.	s.	d.
1 pair plated ſhoe buckles - - -	0	3	6
1 carpenter's adz - - -	0	2	6
1 pair plated ſpurs - - -	0	3	0
	L. 0	9	0

	L.	s.	d.
Monday - - -	0	6	1
Tueſday - - -	0	11	3
Wedneſday - -	0	13	10
Thurſday - - -	1	1	10
Friday - -	0	0	0
Saturday - - -	2	9	0
Entered.	L. 3	2	0

N. B. A further ſpecimen of the *Till-Book is unneceſſary*.

End of the TILL-BOOK.

THE BOOK of HOUSE-EXPENCES.

	Houſe-Expences Dr. *to* Caſh.	L.	s.	d.	L.	s.	d.
1777.							
Jan. 1.	Bread, 2s.—Beef 18 lb. at 4d *per* lb. 6s.	0	8	0			
	A leg of mutton, 3s 6d —potatoes, 2d	0	3	8			
	½ lb. tea, 5s—½ ſtone ſugar, 4s 8d	0	9	8			
	A firkin of beer, 3s 6d—a goole 2s	0	5	6			
	Butter, 1s—ſalt and greens 3d –	0	1	3			
					1	8	1
3.	Vinegar, 8d—eggs, 3d –	0	0	11			
5.	A load of coals, 4s—candles, 2s 6d	0	6	1			
7.	Greens, 2d—a hair broom, 1s 8d	0	1	10			
8.	Eggs, 2d—butter, 1s –	0	1	2			
					0	10	0
10.	Wine, 3s—rum, 4s 8d—ale, 4s 6d	0	12	2			
	Mutton, 4s 2½d—the taylor's bill 3s 7½d – –	0	7	10			
11.	Flour, 7d—oatmeal, 5½d –	0	1	0½			
14.	Potatoes, 4d—milk, 7½d –	0	0	11½			
15.	Eggs, 4d—3 lb. of bacon, 1s 7½d	0	1	11½			
					1	3	11½
17.	Paid the baker's bill –	0	4	0			
18.	Butter, 1s 2d—oyſters, 2s –	0	3	2			
	A turkey, 2s 6d—a pair ſhoes, 5s 6d	0	8	0			
22.	Greens, 1d—meal, 6½d – –	0	0	7½			
					0	15	9½
24.	Paid the butcher's bill -	0	8	5			
26.	Coals, 3s 6d—potatoes, 3d –	0	3	9			
27.	Cheeſe, 1s—butter, 1s 2d –	0	2	2			
31.	Eggs, 2d—milk, 4d – –	0	0	6			
					0	14	10
	N. B. This book will not be continued any more, the above ſketch being ſufficient for the whole.	*Entered*			4	12	8

End of the BOOK of HOUSE EXPENCES.

THE

N°	Drawn by.	Date. 1777.	On whom drawn.	To whom payable.	Usance.	Payable by me, or receiv.	When due. 1777.	To whom and when paid. 1777.	Of whom and when received 1777.	Value. L.	s.	d.
	Payw. & Co	6 Jan.	Paywell & Co. *Lond.*	W. P.	On dem	Receiv.	On demand		Paywell and Co.	500	0	0
1	W. P.	10 Jan	Ditto	Ad. Bennet	At sight	Payab.	At sight	Ad. Bennet, 10. Jan.		8	10	6
2	W. P.	11 ditto	Ditto	Hum. Everet	At sight	Payab.	At sight	Hu. Everet, 11. Jan.		47	5	0
800	Ed. Smith	1 Feb.	Cook & Co. *Lond.*	Tho. Reed	1 month	Receiv.	4th March		Edw. Evans, *per* goods	33	9	0
51	W. Steward	3 ditto	Short & Co.	John Carr	1 month	Receiv.	11th March		Will. Amos, *per* ditto	40	0	0
3	W. P.	17 ditto	Paywell & Co. *Lond.*	W. Thomson	At sight	Payabl.	At sight	W. Thomson, 17. Feb		9	6	6
187	E. Rustnail	16 Jan.	W. P.	Th. Peartree	1 month	Payabl.	19th Feb.	Jo. Dealer, 19. Feb.		40	15	6
283	T. Underw.	21 ditto	W. P.	Jo. Bankwell	1 month	Payabl.	24th Feb.	W. Quick, 24. Feb.		25	11	0
	J. Goodwill	25 Feb.	J. Goodwill, *Kelso*	W. P.	1 month	Receiv.	28th March		J. Goodwill, 25th Mar.	50	0	0
179	E. Honesty	23 Mar.	Hinton & Co. *Lond.*	W. P.	1 month	Receiv.	26th April		A. Longside, do. *p.* gds	50	0	0
4	W. P.	24 ditto	Paywell & Co. *Lond.*	Hum. Everet	6 d. sight	Payabl.	6. d. aft. sight	Hu. Everet, 24. Mar.		140	7	0
5	W. P.	26 ditto	Ditto	Underwork	At sight	Payabl.	At sight	Underwork, 26. Mar.		34	1	6
6	W. P.	1 April	Ditto	Ed. Honesty	At sight	Payabl.	At sight	E. Honesty, 1. April		100	0	0
183	E. Honesty	9 April	Bywell & Co. *Lond.*	W. P.	30 days	Receiv.	12th May		A. Screwf. 9 Ap. *p.* gds	33	0	0
418	W. Hardside	14 Mar.	W. P.	R. Goodluck	1 month	Payabl.	16th April	Ja. Ray, 16. April		33	11	6
207	H. Darling	17 Mar	W. P.	Edw. Ware	1 month	Payabl.	20th April	T. Truepenny, 20. do		40	0	6
7	W. P.	23 Apr.	Paywell & Co. *Lond.* *Exchange for 34 l.*	Ed. Honesty	At sight	Payabl.	At sight	E. Honesty, 23. do.		130	0	0
8	W. P.	23 ditto	J. Hibernian, *Irl.*	Knobs & Mer.	21 d. sight	Receiv.	21 d. af. sight		Knobs & Co. 23d Ap.	31	2	6
9	W. P.	29 ditto	Paywell & Co. *Lond*	W. Amicable	At sight	Receiv.	At sight		Will. Amicable, ditto	29	9	6

Note, 1. Those bills which you draw yourself on Messrs. Paywell and Co. London, to pay your tradesmen, (called *payable*,) must, immediately after they are entered, be filled up in their proper column, (*to whom and when paid*,) that is, to the persons to whom you made them payble; it being evident, you have received valuable considerations for them, *viz.* in goods, *&c.* and that they are paid out of your own money lodged in your Bankers hands.

2. Such as you *receive* in the course of trade, (not having drawn them yourself,) must be made *receivable* by the person from whom you receive the cash, or by those *to whom* you have indorsed the bill, and *from whom* you have already received their respective values in goods.

3. Those which are *payable*, the proper column, *(to whom and when paid)* must be filled up with the persons names to whom you *actually pay* the value when due.

4. The last bill is *receivable*, as there is no accompt open with William Amicable who gave cash for the value of the bill immediately.

BILL OF EXCHANGE BOOK.

A *promiſſory note*, payable to me.- See the entry in the Waſte book, fol. 1. See alſo the firſt entry in the *bill book*.

L. 500. London, 6th January 1777.

I promiſe to pay to Mr. W. P. or order, on demand, five hundred pounds, value received, for ſelf and Co.

Lombard Street, THOMAS PAYWELL.

London.

B *A Bill of exchange.* See the Waſte Book, fol. 2. See alſo No. 1. Bill Book.

N° 1. L. 8 : 10 : 6. Edinburgh, 10th Jan. 1777.

At ſight, pay to Mr. Adam Bennet, or order, eight pounds ten ſhillings and ſixpence, value received, without further advice, from, Gentlemen,

To Your humble ſervant,

Meſſrs. Paywell and Co. Bankers, W. P.

London.

C *A bill of exchange.* See the Waſte Book, fol. 3. See alſo No. 2. Bill Book.

N° 2. L. 47 : 15. Edinburgh, 11th Jan. 1777.

At ſight, pay Mr. Humphry Everet, or order, forty-ſeven pounds and fifteen ſhillings, value received, without further advice, from, Gentlemen,

To Your humble ſervant,

Meſſrs. Paywell and Co. Bankers, W. P.

London.

D This is the form of a *bill of Parcels* of goods ſold. See the entry in the waſte book, fol. 4.

Edinburgh, 13th January 1777.

Mr. *John Friend,*

Bought of *W. P.*

	L.	s.	d.
1 cruet frame, ſilver tops -	1	5	0
1 twenty-eight inch Japann'd tea tray	1	8	0
	L. 2	13	0

E. A *bill of parcels* of goods, with a receipt. See the Waſte-Book, fol. 5.

Edinburgh, 13th January, 1777.

Mr. *William Willing*,

Bought of *W. P.*

	L.	s.	d.
2 doz. of ivory Chineſe knives and forks, at 15s *per* doz. - -	1	10	0
1 doz. ditto, deſſerts - -	0	10	0
1 doz. common ſham buck table ditto	0	2	9
1 four doz. knife caſe, poliſh'd furniture	1	1	0
Receiv'd, then, the contents in full,	L. 3	3	9

W. P.

F. A bill on book-debt *, with a receipt.---See the Waſte-Book, fol. 8.

Mr. *John Friend*, Dr.

To *W. P.*

1777.		L.	s.	d.
Jan. 13.	To goods - -	2	13	0
22.	To ditto - -	1	1	0
Received 24th January, 1777 the contents in full,		L. 3	14	0

W. P.

N. B. The above being a copy of a bill on book debt (taken from the Ledger, *ſee* fol. 6.) was ſent to Mr. Friend by his deſire, which he brought back to me on the 24th January, and paid me the contents: for which reaſon I gave him a receipt, in form as above.

But if Mr. Friend had call'd on me, and paid the amount without bringing his accompt, I ſhould have given him a receipt in the following form:

A receipt.---See the Waſte-book, fol. 8.

Receiv'd, 24th January 1777, of Mr. John Friend, three pounds and fourteen ſhillings, in full and all demands,

L. 3 : 14. W. P.

* Bills on bookBook-debts are extracted from the Ledger.

Mr.

G A bill on book debt. See the entry in the Waste book, fol. 8.

Mr. *William Builder*, Dr.

To *W. P.*

1777.		L.	s.	d.
Jan. 13.	To goods - - -	0	10	9
17.	To ditto - - - -	1	0	11
		L. 1	11	8

Receiv'd, 24th January, the contents in full,

W. P.

H A *bill on book debt* from the *brought forward accompt*, fol. 11. in the Waste-Book. See the entry of the money, fol. 13.

Mr. *Edward Thomas*, Dr.

To *W. P.*

1777.		L.	s.	d.
Jan. 24.	To 1 24 inch japann'd tea tray	1	4	0
	1 10 inch ditto waiter - -	0	3	6
——25.	To 1 common cruet frame - -	0	7	6
		L. 1	15	0

Receiv'd, 29th January 1777, the contents, in full,

W. P.

P. S. The above accompt, although it is a *Bill on Book debt*, yet the particulars muſt be mentioned, for this reaſon:——If a cuſtomer comes into one's ſhop for any trifling article, and does not pay for it, we *debit* him for it in the Waſte Book, and ſeldom give a bill of parcels or particulars with it, expecting it may ſoon be paid for: therefore, when any accompt of this kind is made out, the particulars muſt be ſpecified; whereby it partakes of the form of a *bill of parcels*, and alſo of a *bill on book debt*; the mode of the *former*, in mentioning the *particulars*, and that of the *latter*, in the placing of the *parties' names*, and the *days* of the *month*.

Thomas

I. *Thomas Wickam*, Eſq; Dr.

To *W. P.*

1777.		L.	s.	d.
Jan. 14.	To goods - -	3	2	6
——24.	To ditto - -	5	8	0
——29.	To 1 neat fowling-piece -	2	2	0
	L.	10	12	6

Receiv'd, 29th January 1777, *the contents in full*,

W. P.

A *bill on book debt*, and *receipt*. See the Waſte book, fol. 12.

K. Mrs. *Lovemoney*, Dr.

To *W. P.*

1777.		L.	s.	d.
Jan. 18.	To 1 ſilver pencil-caſe -	0	5	0
	1 neat ſteel inſtrument-caſe	0	7	6
——21	To 1 ſilver thimble - - -	0	1	6
	1 pair London gilt ſhoe buckles	0	6	0
	L.	1	0	0

Receiv'd, 29th January 1777, *the contents*,

W. P.

A *bill on book debt*, from the *brought forward accompts*, fol. 11. in the Waſte book. See the entry of the caſh, fol. 13.

L. Mr. *Thomas Rider*, Dr.

To *W. P.*

1777.		L.	s.	d.
Jan. 13.	To 1 pair plated ſpurs -	0	7	0
——25.	To 1 pair neat boot ſtraps -	0	2	0
	1 pair neat boot buckles -	0	1	0
	L.	0	10	0

Receiv'd, 3d February, 1777 *the contents*,

W. P.

A *bill on book debt*. See the entry of the money in the Waſte-book, fol. 15.

N. B. In order to aſcertain the above accompt, I firſt look among the *brought forward accompts* in the Waſte-book for Rider Thomas's name, where I find him debtor in two parcels, the *firſt* in fol. 5. and the *laſt* in fol. 10. Then turning back to fol. 5. I ſee him debited, on the 13th January, for 1 pair plated ſpurs, 7s. which having written as above, I next refer to fol. 10. where I find likewiſe charged to him 1 pair boot ſtraps, 2s. and 1 pair boot buckles, 1s. I place them underneath. Laſtly, I examine every entry from fol. 11, in the *brought forward accompts*, to the day he ſends for his accompt, *viz.* Feruary 3d, to ſee if there be any thing more againſt him; and finding nothing, I add up the whole, place a receipt under, (having received the money,) and give him credit in the waſte book.

Belford

M. A *bill of exchange*, See the entry in the waſte book, fol. 15, and the indorſers names on the back of it.

Belford, 1ſt February 1777.

N°. 800. L. 33 : 9 : 0.

One month after date, pleaſe to pay Mr. Thomas Reed, or order, thirty-three pounds and nine ſhillings, value receiv'd, as by advice from, Gentlemen,

Your very humble ſervant,
EDWARD SMITH.

To
Meſſrs. Cook and Downright
Merchants, Grey-Friars,
London.

N. B. For an explanation of *bills of exchange*, as well foreign as domeſtic, the reader is deſired to refer to p. 40.

N. A *bill of Exchange.*— See the entry in the Waſte-book, fol. 20. and the indorſers names on the back of it.

Berwick, 8th February 1777.

N°. 51. L. 40.

One month after date, pay Mr. John Carr, or order, forty pounds, value receiv'd, as adviſed by,

Gentlemen,
Your moſt humble ſervant,
WILLIAM STEWARD.

To
Meſſrs. Short and Ready,
Bankers, in
London.

O. A receipt by a ſervant for his maſter. See the entry in the Waſte-Book, fol. 20.

Receiv'd, 14th February 1777, of Mr. John Deal, two pounds and two ſhillings on accompt,

per W. P.

L. 2 : 2 : 0.

N. B. If *Edward Truſty*, my ſervant, had received the above money for my uſe, the receipt muſt have been given as follows:

Receiv'd, 14th February 1744, of Mr. John Deal, two pounds and two ſhillings, on accompt, for Mr. W. P.

L. 2 : 2 0. *per* EDWARD TRUSTY.

Mrs.

P. A *bill on book debt*, from the Waſte book.---See the entry of the money, fol. 21.

Mrs. *Mary Kelly*, Dr.

To *W. P.*

1777.		L.	s.	d.
Jan. 24.	To 1 neat ſteel inſtrument-caſe	0	5	0
	1 ſilver thimble -	0	1	6
—— 29.	To 1 paper ſnuff box -	0	1	6
Feb. 1.	To 1 pair fine London gilt ſleeve buttons - -	0	1	0
		L. 0	9	0

Receiv'd, 14th February 1777, *the contents, in full, and all demands,* W. P.

N. B. I ſhall ſhew you once more how accompts of this kind are collected, by explaining the above; which I think will be ſufficient to render them eaſy and familiar.---Firſt, I turn back to the *accompts* laſt *brought forward* in the Waſte-Book, from the day ſhe aſks for her bill; and finding Mrs. Mary Kelly's name, I ſee the firſt debit to her is 6s. 6d. in fol. 11. then turning back to fol. 11. I am yet there directed backward to fol. 9. where, and on the 24th January, ſhe had 1 *inſtrument caſe* at 5s. and *a ſilver thimble*, 1s. 6d. Having written thoſe as above, I look in the margin of the ſame entry, which tells me the ſum, (*viz.* 6s. 6d.) is carried to fol. 11. then I refer again to *this* folio, and ſeeing no more than *that* one parcel againſt her there, I am likewiſe directed in the margin forward to fol. 19. where I am ſure to find whatever goods ſhe might have had from *that* folio to *this*.---Having then turned forward to fol. 19. I find her indebted in two other parcels, *viz.* in fol. 13. and 14; (that in fol. 11. is already tranſcribed.) I turn back to fol. 13. where ſhe is debited for 1 *paper ſnuff box*, 1s. 6d. which I next write under.---Again, at fol. 14. 1 *pair fine London ſleeve buttons*, 1s. and having written that alſo in the bill, I examine, laſtly, if there be any thing more from fol. 19. to the day ſhe ſends for her accompt, or till I ſend it to her, (which muſt always be done); but finding none, I cloſe the accompt, and give a receipt when I receive the money.

R. A *bill on book debt* from the waſte book.---See the entry, fol. 21.

Mr. *John Lackcaſh*, Dr.

To *W. P.*

1777.		L.	s.	d.
Feb. 5.	To 1 neat copper urn - -	1	7	0
	1 tea bell - -	0	1	6
	1 28 inch beſt japann'd tea tray	1	12	0
	1 10 inch ditto waiter -	0	3	6
		L 3	4	0

Receiv'd, 15th February 1777, *the contents, in full,* W. P.

Q. A *receipt* by a clerk for his master. See the entry in the Waste book, fol. 21.

Receiv'd, 14th February 1777, of Mrs. Gaudy, fifteen. ſhillings and ſixpence, in full, and all demands, for Mr. W. P.

per E. TRUSTY.

L. 0 : 15 : 6.

N. B. Every perſon may not, in ſuch ſmall accompts as Mrs Gaudy's, require a bill of parcels; I have therefore omitted it: yet I would recommend the ſcholar to draw it out. They are alſo very often paid without requiring a receipt; but, as it is my intention to give examples of, ſo I ſhall endeavour to ex, plain, particularly, every Receipt, Promiſſory note, Bill of exchange, *&c*, which occurs in this book-keeping; for which reaſon, I have given a copy of one, ſuppoſing the money to have been received by a clerk or ſervant.

S. A *receipt*.—See the entry in the Waſte book, fol, 22.

Receiv'd, 17th February 1777, of Mr. Edward Carpenter, three pounds, on accompt.

L. 3. W. P.

T. A *bill of Exchange*.—See the entry in the waſte book, fol, 22.

Edinburgh, 25th February 1777.

No. 3. L. 9 : 6 : 6.

At ſight, pay Mr. William Thomſon, or Bearer, nine pounds. ſix ſhillings and ſixpence, value received, without further advice from, Gentlemen,

Your humble ſervant,

To W. P

Meſſrs. Paywell and Co.

London.

U. A *receipt* by a clerk for his maſter.—See the entry in the waſte book, fol, 23,

Receiv'd, 20th February 1777, of Mr. John Homer, nine ſhillings, in full and all demands, for Mr. W. P.

per EDWARD TRUSTY.

L. 0 : 9 : 0.

N, B, Let the ſcholar draw out the above, and the following accompts, from the Waſte book, in order that he may the better underſtand them.

Receiv'd

V. A *receipt*, See the entry in the waſte book, fol. 23.

Receiv'd, 19th February 1777, of Mr. Adam Lack, five ſhillings, in full and all demands,

W. P.

L. 0 : 5 : 0.

W. A *bill of exchange*.—See the entry in the Waſte-Book, fol. 23 alſo the indorſers names on the back of this bill, and the receipt given by the *preſenter*.

London, 16th January 1777.

No. 186 L. 40 : 15 : 6.

One month after date, pay to Mr. Thomas Peartree, or order, forty pounds, fifteen ſhillings and ſixpence, value received, as *per* advice from,

Sir,

Your moſt humble ſervant,

EDWARD RUSTNAIL.

To
Mr. W. P.
Merchant,
Edinburgh.

Accepted,
W. P.

X. A *bill of exchange*.—See the entry in the Waſte Book, fol. 24. and alſo the indorſers names on the back of this bill, and the receipt given by the *preſenter* or *poſſeſſor*.

Sheffield, 21ſt January 1777.

L. 25 : 11 : 0.

One month after date, pleaſe to pay Mr. John Bankwell, or order, twenty-five pounds and eleven ſhillings, value received, as adviſed by,

Sir,

Your humble ſervant,

THOMAS UNDERWORK.

To
Mr. W. P.
Merchant,
Edinburgh.

Accepted,
W. P.

Y. A *promiſſory note.* -- See the entry in the Waſte Book, fol. 24.

Edinburgh, 25th February 1777.

L. 50.

I promiſe to pay to Mr. W. P. or order, one month after date, fifty pounds, value receiv'd,

JOHN GOODWILL.

THOMAS PEARTREE.
JOHN ADAMS.
HUMPHRY OLDSIDE.
WILLIAM LOVERULE.

Received the conteats,
JOHN DEALER.

JOHN BANKWELL.
HENRY LONG.
JOSEPH READIER.

Received the contents,
W. QUICK.

Z. A *bill on book debt*, from the Waſte-Book, with a receipt.—See ditto, fol. 26.

Mr. *William Truſtlove*, Dr.

To *W. P.*

1777.		L.	s.	d.
Feb. 5.	To 1 doz. ſham buck table knives	0	3	3
	1 frying pan -	0	2	0
— 17.	To 1 neat ſteel watch chain -	0	2	6
— 19.	To 1 neat copper urn -	2	2	0
		L. 2	9	9

Receiv'd, 25th February 1777, the contents, in full, for Mr. W. P.

per EDWARD TRUSTY.

A a. A *receipt*.—See the Waſte-book, fol. 27.

Received, 2d March 1777, of Mr. William Merry, one pound and one ſhilling, on accompt.

W. P.

L. 1 : 1 : 0.

B b. A *receipt* by a ſervant for his maſter.—See the Waſte-book, fol. 28.

Received, 5th March 1777, of Mr. John Blackſmith, three pounds and three ſhillings, on accompt, for Mr. W. P.

per EDWARD TRUSTY.

L. 3 : 3 : 0.

C c. A *receipt*.—See the entry of the cash in the Waſte Book, fol. 28.

Received, 5th March 1777, of Mr. Jonas Lovecredit, three ſhillings, in full and all demands,

W. P.

L. 0 : 3 : 0.

N. B. The ſcholar ſhould draw out the *above*, and every *accompt* of this kind, from the Waſte-Book, and write a proper *receipt* underneath, the form whereof will then be as follows:

D d. Received, 5th March 1777, the contents, in full and all demands,

W. P.

E e. A *receipt* given by a ſervant for his maſter. See the W. Book, fol. 29.

Received, 7th March 1777, of Mr. Joſeph Young, twelve ſhillings and ſix pence, in full and all demands, for Mr. W. P.

per EDWARD TRUSTY.

L. 0 : 12 : 6.

F f. A *receipt*. See the entry of the caſh in the W. Book, fol. 29.

Received, -th March 1777, of Mr. Richard Wood, monger, ten pounds and ten ſhillings, on accompt,

W. P.

L. 10 : 10 : 0.

G g. A *receipt* by a ſervant for his maſter. See the W. Book, f. 34.

Received, 19th March 1777, of Mrs Paylittle, eighteen ſhillings, in full, for Mr. W P.

per EDWARD TRUSTY.

L. 0 : 18 : 0.

H h. A *bill of exchange*. See the entry in the Waſte Book, fol. 35.

No. 4. L. 140 : 7 : 0.

Edinburgh, 24th March 1777.

Six days after ſight, pay Mr. Humphry Everet, or order, one hundred and forty pounds and ſeven ſhillings, value received, without further advice from, Gentlemen,

To Your humble ſervant,

Meſſrs. Paywell and Co. W. P.

London.

K k. See the Waſte Book, fol. 36.

Refer to the Waſte-Book, fol. 36. and you will ſee, that on the 25th March 1777, John Goodwill paid me fifty pounds, in full, for his *promiſſory note*, due as above; wherefore, on the back of the note, (as in bills of exchange) I wrote a receipt, as follows:

Received the contents,

W. P.

N. B. It is not abſolutely neceſſary to write a receipt upon the back of a Promiſſory Note; the delivering of it up being a ſufficient voucher of its being paid.

H h. A *bill of exchange* received in the course of trade. See the entry in the W. B. f. 34. also the indorſement on the back of it when I paid it away to Abel Longſide.

N. 179. L. 50.

Edinburgh, 23d March 1777.

Thirty days after date, pay Mr. William Perry, or order, fifty pounds, value received, as adviſed by,

Gentlemen,

Your humble ſervant,

EDWARD HONESTY.

To
Meſſrs. Hinton and Co.
Merchants,
London.

L l. A *bill of exchange*.--See the entry in the Waſte-Book, fol. 36.

No 5. L. 34:1:6. Edinburgh, 26th March 1777.

At ſight, pay Mr. Thomas Underwork, or order, thirty-four pounds, one ſhilling and ſix pence, value received, without further advice from, Gentlemen,

To Your humble ſervant,

Meſſrs. Paywell and Co. W. P.

Bankers, London.

M m. A *receipt* by a clerk or ſervant for his maſter. See the Waſte-book, f. 37.

Receiv'd, 28th March 1777, of Mr. John Simkins, two pounds and two ſhillings, on accompt, for Mr. W. P.

per EDWARD TRUSTY.

L. 2:2:0.

N n. A *receipt*. See the Waſte-Book, fol. 37.

Received, 28th March 1777, of Mr. Edward Carpenter, two pounds and two ſhillings, on accompt.

W. P.

L. 2:2:0.

WILLIAM PERRY.

O 6. A *bill of exchange*.—See the entry of it in the Waste book, fol. 39.

No 6. L. 100. Edinburgh, 1st April 1777.

At sight, pay Mr. Edward Honesty, or order, one hundred pounds, value received, without further advice from, Gentlemen,

To Your humble servant,
Messrs. Paywell and Co. W. P.
London.

P. A *receipt*. See the Waste-Book, fol. 39.

Receiv'd 4th April 1777, of Miss Downright, one pound, ten shillings and six pence, in full,

W. P.

L. 1 : 10 : 6.

Q. A *bill on book debt*, with a *receipt*, See the entry in the Waste-Book, fol. 40.

Frederick King, Esq; Dr.
To *W. P.*

1777.		*L.*	*s.*	*d.*
Jan. 24.	To goods - -	1	7	6
Mar. 7.	To ditto -	4	17	6
—— 24.	To ditto - -	1	2	0
		L. 7	7	0

Receiv'd 7th April 1777, the contents, in full and all demands, W. P.

Receiv'd

R r. A *receipt.*—See the waste-book, fol. 41.

Receiv'd, 7th April 1777, of Mr. William Builder, four pounds, on accompt,

W. P.

L. 4.

S s. A *bill on book debt.*—See the entry of the money in the Waste Book, fol. 41.

Mr. *John Underworth*, Dr.
To *W. P.*

1777.			*L.*	*s.*	*d.*
Jan. 28.	To goods	- -	3	0	0
Mar. 3.	To ditto	-	4	8	4
—— 28.	To ditto	-	2	6	6
			L. 9	14	10

Received, 8th April 1777, the contents, in full and all demands,

W. P.

T t. A *receipt.*—See the waste book, fol. 41.

Received, 8th April 1777, of Mr. John Deal, two pounds, on accompt,

W. P.

L. 2.

U u. A *bill of exchange.*—See the entry in the Waste book, fol 41. See it indorsed by me on the back of it.

No 183. L. 33. Edinburgh, 9th April 1777.

Thirty days after date, pay Mr. W. P. or order, thirty-three pounds, value receiv'd, with or without advice from, Gentlemen,

To Your moſt humble ſervant,

Meſſrs. Bywell and Co. Merchants, London. EDWARD HONESTY.

V v. A *receipt.*—See the Waſte Book, fol. 44.

Receiv'd, 14th April 1777, of Mr. Richard Woodmonger, five pounds and five ſhillings, on accompt.

W. P.

L. 5 : 5 : 0.

W w. A *receipt* by a ſervant or clerk for his maſter.—See the W. B. f. 44.

Receiv'd, 15th April 1777, of Mr. Edward Carpenter, four pounds and four ſhillings, on accompt, for Mr. W. P.

per E. TRUSTY.

L. 4 : 4 : 0.

X x. *A receipt.* See the Waſte-book, fol. 44.

Receiv'd, 16th April 1777, of Mr. John Blackſmith, three pounds and three ſhillings, on accompt,

W. P.

L. 3 : 3 : 0

See page 363.

Z z. *A receipt.* See the waſte book, fol. 45.

Receiv'd, 20th April 1777, of Mrs. Finikin, nineteen ſhillings and ſixpence, in full, and all demands,

per W. P.

L. 0 : 19 : 6.

See page 363.

B 2. *A bill on book debt, and receipt.* See the entry of the money in the waſte-book, fol. 45.

William Wynn, Eſq Dr.
To *W. P.*

1777.		L.	s.	d.
Jan. 25	To goods - - -	4	1	0
Mar. 5.	To ditto - - -	8	1	0
		L. 12	2	0

Receiv'd 22d *April* 1777, *the contents in full and all demands.*

W. P.

WILLIAM PERRY.

C 2. *A bill of exchange.* See it entered in the waſte-book, fol. 46.

Edinburgh, 23d April 1777.

No. 7. L. 130.

At ſight, pay Mr. Edward Honeſty, or order, one hundred and thirty pounds, value receiv'd, without further advice, from, Gentlemen,

Your humble ſervant,

To W. P.

Meſſrs. Paywell and Co.

London.

Yy. A *bill of exchange* drawn on me.—See the entry of the cash in the Waſte Book, fol. 45. and the indorſers on the back of it.

London, 14th March 1777.

No. 418. *L.* 33 : 11 : 6.

One month after date, pay Mr. Richard Goodluck, or order, thirty three pounds, eleven ſhillings and ſix pence, value receiv'd, as advis'd by, Sir,

Your humble ſervant,

To WILLIAM HARDSIDE.

Mr W. P. Merchant at

Edinburgh. *Accepted*

W. P.

A 2. A *bill of exchange.*—See the entry in the waſte-book, fol. 45. and the indorſers names on the back of it.

London, 17th March 1777.

No. 207. L. 40 : 0 : 6.

One month after date, pay Mr. Edward Ware, or order, forty pounds and ſixpence, value receiv'd, as adviſed by, Sir,

Your humble ſervant,

To HENRY DARLING.

Mr. W. P. *Merchant,*

Edinburgh. *Accepted,*

W. P.

D A *foreign bill of exchange.* See the waſte book, f. 40. & See alſo the reaſon of drawing two bills of the ſame tenor and date, in the laws, &c. relating to billsof exchange, p. 149.

Edinburgh, 23d April 1777.

No. 8. Exchange for L. 34.

Twenty one days after ſight, pay this my firſt *per* exchange to Ralph Knobs and Samuel Merry, Eſqrs. or order, thirty four pounds, value of them, as *per* advice from, Sir,

To Your humble ſervant,

Mr. Joſeph Hibernian, W. P.

Merchant, Dublin.

Kelſo, 23d April 1777.

Exchange for L. 34.

Twenty one days after ſight, pay my ſecond *per* exchange (firſt not paid) to Ralph Knobs and Samuel Merry, Eſqrs. or order, thirty four pounds, value of them, as *per* advice from, Sir,

To Your humble ſervant,

Mr Joſeph Hibernian, W. P.

Merchant, Dublin.

RICHARD GOODLUCK.
JOHN OLIVER.
THOMAS JONES.
Receiv'd the contents,
JAMES RAY

EDWARD WARE.
JAMES MILNE.
THOMAS TYPE.
EDWARD LEAR.
Receiv'd the contents,
THO. TRUEPENNY.

E 2. A bill on book debt and receipt. See the waste book, fol. 46.

William Thorogood, Esq; Dr.
To *W. P.*

1777.		*L.*	*s.*	*d.*
Jan. 20.	To goods - -	4	9	0
Apr. 4.	To ditto - -	8	7	0
	Receiv'd, 27th April 1777, the contents, in full, and all demands. L.	12	17	0

W. P.

F 2. An *accompt current*, taken from the Ledger, and *receipt*. See the waſte-book, fol. 47.

Dr. Mr Edward Carpenter, *in Accompt with* W. P. *Edinburgh* Cr.

1777.		L.	s.	d.	1777.		L.	s.	d.
Jan. 15.	To wares	3	2	0	Feb. 17.	By caſh	3	0	0
—— 25.	To ditto	0	10	9	Mar. 28.	By ditto	2	2	0
Feb. 14.	To ditto	6	7	0	Apr. 15.	By ditto	4	4	0
Mar. 19.	To ditto	2	13	0		By balance due	3	6	9
		L. 12	12	9			L. 12	12	9
To balance due as *per contra*		L. 3	6	9					

Errours excepted.

N. B. In accompts current, the balance is not always brought to the *contra* ſide, after being clos'd, as above; for there are many who deliver them, by placing the ſum which remains due, on the Dr. or Cr. ſide only. Both methods are good, and therefore I ſhall leave every perſon to follow his own inclination. If he pay you when you deliver the accompt, write as follows under it:

Receiv'd, 28th April 1777, the contents in full, and all demands.
W. P.

Mr.

G 2

An accompt current, and receipt. See the waſte-book, fol. 47.

Mr. *William Builder*, Dr.
To *W. P.*

1777.			L.	s.	d.
Feb. 7.	To goods	-	0	9	10½
—— 11.	To ditto	-	1	6	9
Mar. 10.	To ditto	-	4	16	0
—— 16.	To ditto	-	2	19	3
Apr. 7.	To ditto	-	10	2	6
		L.	19	14	4½

Contra, Cr.

1777.			L.	s.	d.			
Apr. 7.	By caſh	-	4	0	0			
	By balance due	-	15	14	4½			
						19	14	4½

N. B. Where goods have been delivered at ſundry times, and but one or two payments made, as above, I prefer this form to the laſt. If, when you receive the balance, the above accompt current be produced *per* Mr. Builder, you muſt give a receipt, as before; but if the balance be paid you, and the accompt not produced, you muſt give one as follows:

Receiv'd, 28th April 1777, of Mr William Builder, fifteen pounds, fourteen ſhillings, and four pence half penny, in full, and all demands.

W. P.

L. 15 : 14 : 4½.

Mr.

H 2 *An accompt current.* See the Waste-Book, fol. 47. and the Ledger, fol. 8.

Mr. *John Deal*, Dr. | To *W. P.* Cr.

1777.			L.	s.	d.	1777.			L.	s.	d.
Feb. 1.	To goods	– –	1	11	7	Feb. 14.	By cash	– –	2	2	0
—— 8.	To ditto	– –	1	4	0	April 8.	By ditto	– –	2	0	0
—— 28.	To ditto	– –	2	14	1						
Mar. 16.	To ditto	– –	1	11	9						
April 8.	To ditto	– –	3	12	6						
—— 25.	To ditto	– –	3	16	6		By balance due	–	10	8	5
		L.	14	10	5			L.	14	10	5

N. B. The remarks made underneath the last accompt current, respecting the giving of a receipt, will serve for the above.

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1 2 *A receipt.* See the waste-book, f. 47.

Receiv'd, 29th April 1777, of Mr. Ralph Gripe, thirteen shillings and four pence, in full, for Mr. W. P.

E. TRUSTY.

L. 0 : 13 : 4.

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1 2 *A bill of exchange.* See the Waste-Book, fol. 47.

No. 8. L. 29 : 19 : 6. Edinburgh, 29th April 1777.

At sight, pay Mr. William Amicable, or bearer, twenty nine pounds, nineteen shillings and six pence, value received, as advis'd by,

To
Messrs. Paywell and Co.
London.

Gentlemen,
Your humble servant,
W. P.

K 2 — An *accompt current*....See the Waſte-Book, fol. 47. and the Ledger fol. 10.

Dr. *Edward Honeſty*, in accompt with *W. P.* Cr.

1777.		L.	s.	d.	1777.		L.	s.	d.
Feb. 5.	To caſh –	100	0	0	Feb. 5.	By a bill on Cook and Downright, London – –	33	9	0
—— 26.	To ditto –	10	10	0	—— 12.	By ditto on Short & Ready ditto	40	0	0
Apr. 1.	To my draught on Meſſrs Paywell & Co. London	100	0	0	—— 21.	By caſh – – -	25	0	0
—— 23.	To ditto on ditto	130	0	0	Mar. 23.	By a bill on Hinton and Co. London	50	0	0
					Apr. 9.	By ditto on Bywell & Co. ditto	33	0	0
					—— 23.	By caſh – -	150	0	0
						By balance due –	9	1	0
	L.	340	10	0		L.	340	10	0

Errours excepted.

M 2 — An *accompt current*.--See the Ledger, fol. 5.

Meſſrs. Paywell and Co. London, Drs. To *W. P. Edinburgh*, Cr.

1777.		L.	s.	d.	1777.		L.	s.	d.
Jan. 6.	To caſh, as *per* promiſſory note –	500	0	0	Jan. 10.	By my draught to Adam Bennet	8	10	6
					—— 11.	By ditto to Humphry Everet –	47	15	0
					Feb. 17.	By ditto to William Thompſon	9	6	6
					Mar. 24.	By ditto to Humphry Everet	140	7	0
					—— 26.	By ditto to Thomas Underwork	34	1	6
					Apr. 1.	By ditto to Edward Honeſty -	100	0	0
					—— 23.	By ditto to ditto – –	130	0	0
					—— 29.	By ditto to William Amicable	29	19	6
	L.	500	0	0		L.	500	0	0

N. B. When you ſend the above accompt, you ſhould encloſe their promiſſory note, as you have drawn on them for the balance in hand.

End of the BILL of EXCHANGE-BOOK, and of the Book-Keeping by Single Entry.

BOOK-KEEPING

BY

DOUBLE ENTRY.

WASTE-BOOK. *A.*

EDINBURGH, 1. *January* 1777.

An Inventory of my whole eſtate, conſiſting of money and debts owing to and by me,

W. P.

		L.	s.	d.			
J	*Imprimis,* I Have in ready money	2000	0	0			
J	*Item,* John Willing owes me –	200	0	0			
	Edward Trader, *per* promiſſory note due 10th inſtant –	400	0	0			
					2600	0	0

I owe as follows:

J	To William Newman, to pay the 8th inſtant	100	0	0

Note, 1. The inventory of your caſh, debts, *&c.* called *ſtock,* being made, the next thing is, to open the Journal with the ſame, by making *ſundry accompts* Drs. to Stock, Cr. * for the ſum total, (except what you owe,) and then mention the particulars, as you ſee them in the journal.

2. For the ſeveral ſums owing by you, make *ſtock* Dr. to *ſundry accompts* *, particularizing each perſon for the reſpective ſum due to him. But,

3. As you are indebted only to William Newman, you muſt make

Stock Dr. to William Newman, L. 100.
Due the 8th inſtant — L. 100.

4. The J, in the margin, ſhows the accompt to be journaliz'd.

** Cr. is ſeldom expreſſed, but always underſtood.

3d

Bought for ready money.

J	122 gallons of brandy, at 9s 6d *per gallon* -						

Note. Whatever is received into Stock, muſt be debited, and the perſon it was received from, or the thing given for it, muſt be credited. Therefore, in this caſe, brandy will be Dr. and caſh Cr. and, to journalize this, you muſt ſay,

	L.	s.	d.	L.	s.	d.
Brandy Dr to Caſh –	57	19	0			
For 122 gall. at 9s 6d *per* gallon - -				57	19	0

Edinburgh, 3d *January* 1777.

Bought of Edward Hyde.

		L.	s.	d.	L.	s.	d.
J	19 hogſheads of Oporto wine, at 6l 15s *per* hogſhead (*E. H.*) –						
J	Paid him caſh in part – –	78	5	0			
J	Balance to be paid in one month –	50	0	0			
					128	5	0

Note, 1. Here Oporto wine, value 128l. 5s. is received into ſtock; caſh has been given in part for it, and credit for the reſt from Edward Hyde: It is therefore evident, from the general rule, that to journalize this, you muſt make

	L.	s.	d.
Oporto wine Dr. to *ſundry accompts*	128	5	0

Then mention theſe ſundry accompts ſeparately thus:

	L.	s.	d.	L.	s.	d.
To caſh, in part for 19 hogſheads, at 6l 15s *per* hhd.	78	5	0			
To Edward Hyde for the ballance, to be paid the 8th inſtant – –	50	0	0			
				128	5	8

2. When a perſon or thing is, by the general rule, Dr. to another perſon or thing, the particulars, for what, and the ſum, muſt be minutely expreſſed, as above.

Bought of William Hopper, Eſq;

		L.	s.	d.	L.	s.	d.
J	17 hogſheads of Liſbon wine, at 7l *per* hogſhead (*W. H.*) – –						
J	5 hogſheads French ditto, 27l 10s ditto						
					256	10	0

Note. Herein you muſt make ſundry accompts Drs. (*viz*. Liſbon wine, and French wine) to William Hopper for the whole amount, with their ſeveral quantities and values.

Bought of John Berry.

J 9 hogſheads tobacco, weight 34 cwt. 1 qr. 16 lb. at 4l. 8s. *per* cwt. (*J. B.*) – –

Note. Having received tobacco into your ſtock, and not paid for it, you muſt make Tobacco Dr. to John Berry for the quantity received of him, and its value.

Edinburgh, 4th *January* 1777

Bought of Joſeph Cowley.

J 12 pipes of Canary, at 26l 10s *per* pipe *(J. C.)*

		L.	s.	d.	L.	s.	d.
J	Paid him in part – –	218	0	0			
J	Balance to be paid the 12th inſtant	100	0	0	318	0	0

Note, This caſe being ſimilar to that of Edward Hyde's, on the 2d inſtant, refer thereto for inſtructions.

5th

Bought for ready money.

J 476 gallons of Jamaica rum, at 8s 3d *per* gal.
J 74 bags of pepper, weight 2316 lb. at 9½d. *per* lb.

288 0 6

Note, This is nearly the ſame as the firſt entry; but having received two ſorts of goods into your ſtock, *ſundry accompts* muſt be made Drs to *Caſh* ‡ for their whole value, *viz. rum* and *pepper*, for their ſeveral quantities and values.

6th.

Sold David Daiſy.

J 3 pipes of canary wine, at 28 l. *per* pipe –

Note) By the general rule, David Daiſy will be Dr. aud Canary wine Cr.

7th.

Bought of Elias Elliot.

J 12 hogſheads of ſugar, weight 38 cwt. 3 qrs. 8 lb. at 37s 4d *per* cwt. *(E. E.)* – – –
To pay in 1 month –

Note, This caſe is ſimilar to that of J. Berry's on the 2d inſtant.

8th.

Sold for ready money.

		L.	s.	d.
J	5 hogſheads Liſbon wine, at 7l 12 *per* hogſhead			
J	1 hogſhead French ditto – –	68	0	0

Note, As you have received Caſh into your Stock, it muſt be made Dr. to *ſundry accompts* for the whole value received: then mention thoſe ſundry accompts in particular, for their quantities and values. So that, in this, caſh is Dr. and Liſbon wine and French wine Crs.

‡ That is, *rum* and *pepper* Drs. and *caſh*, Cr.

Edinburgh, 8th January 1777.

J Paid William Newman, in full — — 10 0 0

Note 1. This is to be journaliz'd thus:

	L. s. d.	L. s. d.
William Newman, Dr. to *Cash*	100 0 0	
Paid him in full - -		100 0 0

2. This is the same as in Single Entry, except in the disposal of the words. *See the Journal by Single Entry*, fol. 5.

3. In either receiving or paying money, remember always to mention whether the sum be in part or in full.

10th

Bought for ready money.

J 22 pieces of broad cloth, each piece containing 16 yards, at 14s *per* yard — —

Note, This case is exactly similar to that of the 2d instant.

J Receiv'd of John Willing, in full — 200 0 0

Note, 1. To journalize this, make

	L. s. d.	L. s. d.
Cash Dr. to *John Willing*	200 0 0	
Received of him in full		200 0 0

2. This differs in nothing from Single Entry, excepting in the order of the words. *See the Journal by Single Entry*, fol, 10.

11th.

Sold James Forrest.

	L. s. d.	
J 12 pieces of broad cloth, containing 192 yards, at 15s *per* yard —	44 0 0	
Receiv'd of him, in part - -	-	
Also his promissory note for the balance, at 1 month	100 0 0	
		144 0 0

Note, You have received Cash and a Promissory note into your Stock, which must be made Drs. and Broad Cloth, having been given out of your Stock, must be Cr. But observe, that Bills of Exchange and Promissory Notes, received by you in the course of trade, in book-keeping by double entry, are all debited under the title of Bills Receivable; therefore this entry will be journaliz'd by making

	L. s. d.
Sundry accompts Drs. to *broad cloth*	144 0 0

viz, *Cash* and *Bills receivable*; mentioning for the particular quantity and their values, as at the 2d instant.

Edinburgh, 13th *January* 1777.

J ceiv'd of Edward Trader, in full - 400 0 0

Note. Refer to a ſimilar caſe, the 10th inſtant.

J aid Joſeph Cowley, in full - - 100 0 0

Note. This caſe is ſimilar to that of the 8th inſtant.

14th.

Sold William Goodluck,

	L.	s.	d.			
J 5 hogſheads tobacco, containing 19 cwt. 1 qr. 8 lb. at 4l 13s *per* cwt. -						
J 26 bags of pepper, *qt.* 854 lb. at 10d *per* lb.				125	8	6½
J Receiv'd in part - - -	71	0	6½			
J And the balance in a draught on Meſſrs. Hern and Co. - - -	54	8	0			
				125	8	6½

Note, 1. This is a complex caſe, and muſt be journalized in the following manner.--Firſt you muſt make William Goodluck Dr. to ſundry accompts, *viz.* to Tobacco for the quantity and value.

2. Sundry accompts muſt be made Drs. to William Goodluck, *viz.* Caſh for the money received in part for ſundries, and Bills receivable for one on Meſſrs. Hern and Co.

J Barter'd 10 pieces of broad cloth, containing 160 yards, at 14s 4d *per* yard, for 1376 yards of Iriſh linen, at 1s 8d *per* yard, of the ſame value -

Note, When the goods receiv'd are equal in value to thoſe given, make thoſe received Dr. to thoſe given, for their reſpective quantities and values, and *vice verſa*.

15th.

Bought of John Ingram,

	L.	s.	d.			
J 236 gallons of geneva, at 5s 7½ *per* gallon						
Paid him as follows:						
J Caſh, in part - -	36	7	6			
J Balance, to be paid the 20th inſtant -	30	0	0	66	7	6

Note, This caſe differs in nothing from that of the 3d inſtant.

Edinburgh, 17th January 1777.

Sold William Carr, Eſq;

	L.	s.	d.			
12 hogſheads Oporto wine, at 71 4s *per* hhd.						
7 pipes of Canary, at 29l *per* pipe - -						
				289	8	0
Receiv'd in caſh - -	189	8	0			
The balance due on demand -	100	0	0			
				289	8	0

Note, This is a complex accompt: to journalize which, 1*ſt*, The buyer, William Kerr, muſt be made Dr. to *ſundry accompts* for the whole value ſold him, with the particulars of each, as before: 2*dly*, *Caſh* muſt be made Dr. to William Kerr for the money received.

18th.

Sold for ready money.

122 gallons of brandy, at 10s *per* gallon -

Note, This caſe is juſt the reverſe to that of the 8th inſtant.

20th.

David Daiſy having compounded with his creditors to pay them 14s 6d in the pound, I have given him a full diſcharge for my debt of 84l and have received of him - - - -

Note, 1. Although David Daiſy has paid you no more than 60l. 18s. yet, becauſe you have agreed to the compoſition, you muſt credit him for the whole, by making Sundry accompts Drs. to David Daiſy for the whole ſum; that is Caſh, for the money received, and Profit and Loſs for the ſum abated him.

Paid John Ingram, in full - - 30 0 0

21ſt.

Sold for ready money.

	L.	s.	d.			
124 gallons rum, at 9s 2d *per* gallon - -						
12 hogſheads ſugar, containing 28 cwt. -						
3 qrs. 8 lb. at 39s 8d *per* cwt. - -						
				133	16	7

Note, This caſe is ſimilar to that of the 8th inſtant.

22d

Received of Meſſrs. Hern and Co. in full for a draught on them - - - - 54 8 0

Note, Having received Caſh into Stock, and given away the above Bill of Exchange, you muſt debit Caſh to Bills receivable, mentioning the perſon on whom it was drawn, and the value of it.

Edinburgh, 24th January 1777.

Bought of Adam Lilly,

		L.	s.	d.			
J	32 pieces of cambrick, at 3l 11s 6d *per* piece -						
J	14 pieces of ditto, at 5l 5s *per* ditto - -						
					187	18	0
J	Paid him in cash - - -	87	18	0			
J	Alſo, J. Foreſt's promiſſory note, in full	100	0	0			
					187	18	0

25th.

Sold for ready money.

J	4 hogſheads French wine, at 29l 14s *per* hogſhead						
J	236 gallons of geneva, at 6s *per* gallon -						
					189	16	0

27th.

Lent Abraham Moneyleſs,

J	Upon bond at 5l *per cent.* - - -				500	0	0

Note, You muſt make the borrower, Abraham Moneyleſs, Dr, to Caſh for the ſum lent.

28th

		L.	s.	d.			
J	Paid Elias Elliot, in full -	72	9	0			
J	Abated me - -	0	0	4			

Note, The abatement of 4d being ſo trifling, the ſtudent may not think it worth his while to take notice of it; yet as the greateſt exactneſs is required, to make your books balance, you muſt journalize this, and all caſes ſimilar to it, in the following manner: Elias Elliot Dr to *ſundry accompts* † for the ſum total.

29th.

Bought of Richard Moody,

J	26 pieces of muſlin, containing 20 yards each, 3s 8½d at *per* yard -						

Sold for ready money,

J	4 hogſheads tobacco, containing 15 cwt. 0 qr. 8 lb. at 4l 12s *per* cwt. - -						

31ſt.

J	Paid ſundry expences this month, as *per* the *book of houſehold expences* - - -				7	1	6

Note, In this caſe, Houſe expences will be Dr. and Caſh Cr.

† That is, to Caſh and Profit and Loſs, mentioning the particulars of each.

End of the WASTE-BOOK, A.

JOURNAL. A.

EDINBURGH, 1st *January*, 1773.

		L.	s.	d.	L.	s.	d.
	Sundry accompts Drs. to *ſtock* *						
1	Caſh in ready money	2000	0	0			
1	John Willing	200	0	0			
1/3	Edward Trader, *per* promiſſory note due the 10th inſtant	400	0	0			
					2600	0	0
1/3	Stock Dr. to William Newman	100	0	0			
	Due the 8th inſtant				100	0	0

Note, 1. Having journalized the inventory, as above, you muſt refer to your Ledger, and erect an accompt therein for each of theſe particulars, as you have been directed in *book-keeping by ſingle entry*.

2. You ſee that *ſundry accompts* are Drs. to *ſtock*; therefore, in your Ledger you muſt firſt debit each of thoſe ſundry accompts, and then credit *ſtock* by *ſundry accompts* for the whole value.

3. Debit *ſtock* to William Newman for the ſum, *&c.* and then credit William Newman by *ſtock* for the like ſum; and remember to put the correſponding reference figures in this and every ſucceeding accompt.

4. The figures in the margin of the Journal, ſhew in what folio of the Ledger thoſe particular accompts are poſted; and as, in every entry in the Journal, there is at leaſt one Dr. and one Cr. the figures denoting the Drs. are placed above a line, and the Crs. below, oppoſite to the very entry.

* That is, *ſundry accompts* Drs. to *ſtock*, Cr.—*Cr.* is ſeldom expreſſed, but always underſtood.

3d.

1/2	*Brandy*, Dr. to *Caſh*	57	19	0			
					57	19	0
1	For 122 gallons, at 9s 6d *per* gallon						

Note, To poſt this, debit *brandy* in your Ledger, as it ſtands above; *caſh* muſt then be made Cr. by *brandy* for its quantity, price *per* gallon, and value.

2	*Oporto wine* Dr to *ſundry accompts*	128	5	0			
1	To caſh, in part for 19 hogſheads, at 6l 15s *per* hogſhead	78	5	0			
1	To Edward Hyde for the balance, to be paid in 1 month	50	0	0			
					128	5	0

Edinburgh, 3d *January*, 1777.

Note, Debit Oporto wine to ſundry accompts, for its quantity, price *per* hogſhead, and value; then credit Caſh and Edward Hyde reſpectively by Oporto wine, the former for the ſum paid, and the latter for the balance due to him.

		L.	s.	d.	L.	s.	d.
	Sundry accompts, Drs. to *Will. Hopper*, Eſq;	256	10	0			
2	Liſbon wine for 17 hogſheads, at 7l *per* hogſhead – –	119	0	0			
2/2	French wine, for 5 hogſheads, at 27l 10s ditto – –	137	10	0	256	10	0

Note, Debit both Liſbon wine, and French wine to William Hopper, Eſq; for their quantities and values, and then credit William Hopper, Eſq; by Sundry accompts for their values.

2/3	*Tobacco* Dr. to *John Berry* –	151	6	6¾			
	For 9 hogſheads, containing 34 cwt. 1 qr. 16 lb. at 4l 8s *per* cwt. –				151	6	6¾

Note, To poſt this, firſt make Tobacco Dr. to John Berry for the quantity, &c. then credit John Berry, by Tobacco for its value.

4th

3	*Canary*, Dr. to *ſundry accompts* –	318	0	0			
1	To caſh, in part for 12 pipes, at 26l 10s *per* pipe – –	218	0	0			
3	To Joſeph Cowley for the balance, to be paid the 12th inſtant – –	100	0	0			
					318	0	0

Note, The directions given the 3d inſtant, under the entry of Oporto wine, are applicable to this.

5th.

	Sundry accompts Drs. to *Caſh* –	288	0	6			
3	Rum for 476 gallons, at 8s 3d *per* gallon	196	7	0			
3/1	Pepper for 74 bags, containing 2316 lb. at 9½d *per* lb. – –	91	13	6			
					288	0	6

Note, After having made Rum and Pepper Drs. reſpectively to Caſh, for their quantities, prices and values, credit Caſh by Sundry accompts for the ſum total.

Edinburgh, 6th *January* 1777.

		L.	s.	d.	L.	s.	d.
3/3	*Daisy, David*, Dr. to *Canary* -	84	0	0			
	For 3 pipes, at 28l. *per* pipe - -				84	0	0
	Note, This is so easy, as to require, I presume, no instructions.						
	7th.						
3/4	*Sugar*, Dr. to *Elias Elliot* -	72	9	4			
	For 12 hogsheads, containing 38 cwt. 3 qrs. 8 lb. at 37s 4d *per* cwt. - -				72	9	4
	8th.						
1	*Cash* Dr. to *sundry accompts* -	68	0	0			
1	To Lisbon wine for 5 hogsheads, at 7l 12s *per* hogshead - -	38	0	0			
2	To French wine for 1 hogshead -	30	0	0			
					68	0	0
	Note, Debit Cash to Sundry accompts for the sum total; then credit Lisbon wine and French wine separately, by Cash, for the quantity, price, and value of each.						
1/1	*William Newman*, Dr. to *Cash* -	100	0	0			
	Paid him in full - - -				100	0	0
	Note, Post this as has been directed in common book-keeping.						
	10th						
4/1	*Broad cloth* Dr. to *Cash* - -	246	8	0			
	For 22 pieces, each piece containing 16 yards, at 14s *per* yard - -				246	8	0
1/1	*Cash*, Dr. to *John Willing* -	200	0	0			
	Received in full - -				200	0	0
	11th						
	Sundry accompts Drs. to *broad cloth*	144	0	0			
1	*Cash* in part for 12 pieces, containing 192 yds, at 15s *per* yard -	44	0	0			
4/4	*Bills receivable* for James Foreft's promiſſory note, at 1 month's uſance -	100	0	0			
					144	0	0
	Note, 1. First debit Cash to Broad Cloth in part for the sum, then Bills receivable to ditto, for J. Foreft's Promiſſory note, *&c.* for its value.						
	2. Credit Broad cloth by Sundry accompts for the quantity, price and value.						

Edinburgh, 13th *January* 1777.

1	*Caſh*, Dr. to *Edward Trader*		400 0 0			
1	Received in full			400	0	0
3	*Joſeph Cowley*, Dr. to *Caſh*		100 0 0			
1	Paid him in full			100	0	0

14th.

			l. s. d.			
4	*Goodluck, William*, Dr. to *ſundry accompts*		125 8 6½			
2	To Tobacco, for 5 hogſheads, containing 19 cwt. 1 qr. 8 lb. at 4l 13s *per* cwt.		89 16 10½			
3	To Pepper for 26 bags, containing 854 lb. at 10d *per* lb.		35 11 8	125	8	6½
	Sundry accompts Drs. to *William Goodluck*		125 8 6½			
1	*Caſh*, in part for tobacco and pepper		71 0 6½			
4	*Bills receivable*, for one on Hern and Co.		54 8 0			
				125	8	6½

Note, 1. To poſt the firſt part of this entry, debit William Goodluck to ſundry accompts for 125l 8s 6½d then credit Tobacco and Pepper, both by William Goodluck, for their quantities, prices and values.

2. The latter part muſt be poſted, by beginning, firſt with Caſh, then Bills receivable; both of which muſt be debited to William Goodluck, *verbatim* as above: and, laſtly, William Goodluck muſt be credited by ſundry accompts for 125l 8s 6½d which will balance his accompt.

3. From the inſtructions already given, I preſume the Tyro will be at no loſs to poſt the remainder of the Journal.

4	*Iriſh linen* Dr. to *broad cloth*		114 13 4			
4	For 1376 yards, at 1s 8d *per* yard, received in barter for 10 pieces broad cloth, containing 160 yards, at 14s 4d *per* yard			114	13	4

Edinburgh, 15th January, 1777.

		L.	s.	d.	L.	s.	d.
4	*Geneva* Dr. to *ſundry accompts* –	66	7	6			
1	To caſh, in part for 236 gallons, at 5s 7½d *per* gallon – – –	36	7	6			
5	To John Ingram, for the balance, due the 20th inſtant. – –	30	0	0			
					66	7	6
	17th.						
5	*Kerr, William,* Eſq; Dr. to *ſundry accompts*	289	8	0			
2	To Oporto wine, for 12 hogſheads, at 7l 4s *per* hogſhead – –	86	8	0			
3	To Canary, for 7 pipes, at 29l *per* pipe	203	0	0			
					289	8	0
1	*Caſh* Dr. to *William Kerr,* Eſq; –	189	8	0			
	Received in part for the above goods				189	8	0
	18th.						
1	*Caſh* Dr. to *Brandy* – –	61	0	0			
	For 122 gallons, at 10s *per* gallon				61	0	0
	20th.						
	Sundry accompts Drs. to *David Daiſy*	84	0	0			
1	Caſh received – –	60	18	0			
5	Profit and loſs abated in compoſition	23	2	0			
					84	0	0
5	*Ingram, John,* Dr. to *Caſh* – –	30	0	0			
	Paid him in full – – –				30	0	0
	21ſt.						
1	*Caſh* Dr. to *ſundry accompts* –	133	16	7			
3	To rum for 124 gallons, at 9s 2d *per* gallon	56	16	8			
3	To ſugar for 12 hogſheads, containing 38 cwt. 3 qrs. 8 lb. at 39s 8d *per* cwt.	76	19	11			
					133	16	7
	22d.						
2	*Caſh* Dr. to *Bills receivable* –	54	8	0			
	For one on Meſſrs. Hern and Co. – –				54	8	0

Edinburgh, 24th January, 1777.

		L.	s.	d.	L.	s.	d.
5	*Cambricks* Dr. to *ſundry accompts*	187	18	0			
1	To caſh, in part for 32 pieces, at 3l 11s 6d *per* piece, and 14 ditto, at 5l 5s ditto	87	18	0			
4	To *bills receivable*, for J. Foreſt's promiſſory note	100	0	0			
					18	18	0
	25th.						
1	*Caſh* Dr. to *ſundry accompts*	189	16	0			
2	To French wine, for 4 hogſheads, at 29l 15s *per* hogſhead	119	0	0			
4	To Geneva, for 236 gallons, at 6s *per* gallon	70	16	0			
					189	16	0
	27th.						
6/1	*Moneyleſs, Abraham*, Dr. to *Caſh*	500	0	0			
	Lent him on bond at 5l *per cent.*				500	0	0
	28th.						
4	*Elliot, Elias*, Dr. to *ſundry accompts*	72	9	4			
1	To Caſh in part	72	9	0			
5	To Profit and loſs abated me	0	0	4			
					72	9	4
	29th.						
5/6	*Muſlin* Dr. to *Richard Moody*	96	6	4			
	For 26 pieces, containing 20 yards each, at 3s 8½d *per* piece				96	6	4
1/2	*Caſh* Dr. to *Tobacco*	96	6	6¾			
	For 4 hogſheads, containing 15 cwt. 0 qr. 8 lb. at 4l 12s *per* cwt.				69	6	6¾
	31ſt.						
1/6	*Houſe-expences* Dr. to *Caſh*	7	1	6			
	For ſundry charges paid this month, as *per book of houſe expences*				7	1	6

End of the JOURNAL, A.

LEDGER.

THE ALPHABET.

A.

	Fol.

B.

	Fol.
Brandy -	1
Berry, John -	2
Broad cloth -	4
Bills receivable -	4
Balance -	6

C.

	Fol.
Caſh -	1
Canary -	3
Cowley, Joſeph, -	3
Cambricks -	5

D.

	Fol.
Daiſy, David -	3

E.

	Fol.
Elliot, Elias -	4

F.

	Fol.
French wine -	2

G.

	Fol.
Goodluck, William -	4
Geneva -	4

H.

	Fol.
Hyde, Edward -	1
Hopper, William, Eſq;	2
Houſe expences -	6

I.

	Fol.
Iriſh linen -	4
Ingram, John -	5

K.

	Fol.
Kerr, William, Eſq; -	5

L.

	Fol.
Liſbon wine -	2

M.

	Fol.
Moneyleſs, Abraham -	5
Muſlin - -	5
Moody, Richard -	6

N.	Fol.
Newman, William –	1

T.	Fol.
Trader, Edward –	1
Tobacco – –	2

O.	Fol.
Oporto wine –	2

U. and V.	Fol.

P.	Fol.
Pepper – –	3
Profit and loſs –	5

W.	Fol.
Willing, John –	1

Q.	Fol.

X.	Fol.

R.	Fol.
Rum – –	3

Y.	Fol.

S.	Fol.
Stock – –	1
Sugar – –	3

Z.	Fol.

1777.	Fol.	*Stock*, Dr.	Fol.	L.	s	d.
Jan. 1.	1	To William Newman –	1	10	0	0
—31.		To balance for the neat proceed of my whole eſtate – –	6	[illegible]	[illegible]	1½
				265	[illegible]	4½

Note, 1. The figures in the columns of both Dr. and Cr. ſides, immediately after the day of the month, refer to the folio of the Journal from which the entries are taken.
2, *Thoſe* in the column next before the money, on this ſide, ſhew the folio where the correſponding accompt ſtands on the Cr. ſide.
3, The *balance* ſhews what you are worth at the cloſing of your books.

1777.		*Caſh*, Dr.				
Jan. 1.	1	To ſtock – –	1	2000	0	0
—31.		To ſundry accompts received this month		1541	13	8¼
				3541	13	8¼

1777.		*Willing, John*, Dr.				
Jan. 1.	1	To ſtock – –	1	200	0	0

1777.		*Trader, Edward*, Dr.				
Jan. 1.	1	To ſtock, *per* promiſſory note, due the 10th inſtant –	1	400	0	0

1777.		*Newman, William*, Dr.				
Jan. 8	3	To caſh, in full –	1	100	0	0

1777.		*Brandy*, Dr.	*Gal.*				
Jan. 2.	1	To caſh, at 9s 6d *per* gallon, for	122	1	57	19	0
—31.		To profit and loſs gain'd by this accompt		5	3	1	0
					61	0	0

Note, 1. When goods are all ſold, the accompt thereof is to be balanced by *profit and loſs*; and if the Dr. exceed the Cr. the difference is *loſs*: but if the Cr. exceed the Dr. as in this accompt, the difference is *gain*, which muſt be placed on the Dr. ſide, as above.

1777.		*Hyde, Edward*, Dr.				
Jan. 31.		To balance due to him, to pay the 2d February next –	6	50	0	0

Note, 1. The above line is put to balance the accompt; and as you are indebted to him, refer immediately to the Cr. ſide of *balance*, and write, *By Edward Hyde, due the 2d February*, 50*l*.

1777.	Fol.	Per Contra, Cr.	Fol.	L.	s.	d.
Jan. 1.	1	By ſundry accompts -		2600	0	0
—— 31.		By *profit and loſs* gain'd by 1 month's trading - -	6	51	6	4½
				2651	6	4½

Note, 1. The firſt line on this ſide contains the whole of your eſtate due to you when you began trade, and the Profit and Loſs contains what you have gained ſince that period.
2, The figures in the column next before the money, on this ſide, refer to the folio of the correſponding accompt on the Dr. ſide.

1777.		Per Contra, Cr.				
Jan. 31.		By ſundry accompts paid this month		1822	8	6
		By balance remaining in hand -	6	1719	5	2¼
				3541	13	8¼

1777.		Per Contra, Cr.				
Jan. 10.	3	By caſh in full -	1	200	0	0

1777.		Per Contra, Cr.				
Jan. 13.	4	By caſh in full - -	1	400	0	0

1777.		Per Contra, Cr.				
Jan. 1.	1	By ſtock - -	1	100	0	0

1777.		Per Contra, Cr.	Gal.				
Jan. 18.	5	By caſh, at 10s *per* gallon -	122	1	61	0	0
					61	0	0

Note. 2. Refer next to *profit and loſs* accompt, on the Cr. ſide whereof write, *By brandy gained*, 3*l*. 1*s*.
3, Place the reference figure to each correſponding accompt, and it will be finiſhed.

1777.		Per Contra, Cr.				
Jan. 3.	1	By Oporto wine, to pay in 1 month	2	50	0	0

Note, 2. Whatever ſum is placed on the Dr. ſide of a perſon's accompt, to balance it, the ſame ſum muſt be placed on the Cr. of the correſponding one; and *vice verſa*,

1777.	Fol.	*Oporto wine*, Dr.	Hhds	Mark.	Fol.	L.	s.	d.
Jan. 3.	1	To ſundry accompts, at 6l 15s *per* hogſhead –	19	E.H.		128	5	0
— 31.		To profit and loſs gain'd by this accompt –			5	5	8	0
			19			133	13	0

Note, 1. When, in an accompt of goods, there remains a part in hand unſold, they muſt be valued at prime coſt; after which, you muſt write on the Cr. ſide, *By balance unſold*, mentioning the quantity, price and value, &c. as on the *contra* ſide, and then refer to *balance*, and place the ſaid goods, and value &c. on the Dr. ſide thereof.

1777.		*Hopper, William*, Eſq; Dr.						
Jan. 31.		To balance due to him on demand –			6	256	10	0

1777.		*Liſbon Wine*, Dr.	Hhds	Mark.				
Jan. 2.	2	To William Hopper, Eſq; at 7l *per* hogſhead –	17	W. H.	2	119	0	0
— 31.		To profit and loſs gain'd by this accompt –			5	3	0	0
			17			122	0	0

1777.		*French Wine*, Dr.	Hhds	Mark.				
Jan. 3.	2	To William Hopper, Eſq; at 27l. 10s *per* hogſhead	5	W. H.	2	137	10	0
— 31.		To profit and loſs gain'd by this accompt. –			5	11	10	0
			5			149	0	0

1777.		*Tobacco*, Dr.	Hhds	C.	qr.	lb.	Mark.				
Jan. 3.	2	To John Berry, at 4l 8s *per* cwt.	9	34	1	16	J. B	2	151	6	$6\frac{3}{4}$
		To profit and loſs gain'd by the accompt –						5	7	16	$10\frac{1}{4}$
			9	34	1	16			159	3	$5\frac{1}{4}$

1777.	Fol.	*Per Contra*, Cr.	Hhds	Mark.	Fol.	L.	s.	d.
Jan. 17.	5	By William Kerr, Esq; at 7l 4s *per* hogshead –	12	W. H.	5	86	8	0
—31.		By balance unsold, at 6l 15s ditto –	7	W. H.	6	47	5	0
			19			133	13	0

Note, 2. See, by the *1st* note under the accompt of *Brandy*, whether you have gained or lost: if you have gained, proceed as you are there directed: but if lost, place the difference on the Cr. side hereof) and then on the Dr. side of *profit and loss*, with the reference figures, as before, and then the accompt will be properly balanced.

1777.		*Per Contra*, Cr.				
Jan. 3.	2	By sundry accompts –			256	10	0

1777.		*Per Contra*, Cr.	Hhds	Mark.				
Jan. 8.	3	By cash, at 7l 12s *per* hogshead –	5	W. H.	1	38	0	0
—31.		By balance unsold, at 7l *per* hogshead –	12	W. H.	6	54	0	0
			17			122	0	0

1777.		*Per Contra*, Cr.	Hhds	Mark.				
Jan. 8.	3	By cash, at 30l *per* hogshead –	1	W. H.	1	30	0	0
—25.	6	By ditto, at 29l 15s ditto	4	W. H.	1	119	0	0
			5			149	0	0

1777.		*Per Contra*, Cr.	Hhds	C.	qr.	lb.	Mark.				
Jan. 14.	4	By William Goodluck, at 93s *per* cwt.	5	19	1	8	J. B.	4	89	16	10½
—29.	6	By cash, at 92s ditto –	4	15	0	8	J. B.	1	69	6	6¾
			9	34		16			159	3	5¼

1777.	Fol.		Fol.	L.	s.	d.
		Berry, John, Dr.				
Jan. 31.		To balance due to him on demand –	6	151	6	6¾
		Canary, Dr.				
1777.			Pipes.	Mark.		
Jan. 4.	2	To sundry accompts, at 26l 10s *per* pipe –	12	J. C.	5 318	0 0
— 31.		To profit and loss gain'd by this accompt –			22	0 0
			12		340	0 0
		Cowley, Joseph, Dr.				
1777.						
Jan. 13.	4	To Cash, in full –			1 100	0 0
		Rum, Dr.				
				Gall.		
1777.						
Jan. 5	2	To cash, at 8s 3d *per* gallon –		476	1 196	7 0
— 31		To profit and loss gain'd *per* this accompt –			5 5	13 8
				476	202	0 8
		Pepper, Dr.				
			Bags.	lb.		
1777.						
Jan. 5.	2	To cash, at 9½ *per* lb.	74	2316	1 91	13 6
— 31.		To profit and loss gain'd *per* this accompt –			5 1	15 7
			74	2316	93	9 1
		Daisy, David, Dr.				
1777.						
Jan. 6.	3	To Canary – –			3 84	0 0
		Sugar, Dr.				
			Hhds	C. qr. lb.	Mark.	
1777.						
Jan. 7.	3	To Elias Elliot at 37s 4d *per* cwt	12	38 3 8	E. E. 4	72 9 4
— 31.		To profit and loss gain'd *per* this accompt			5	4 10 7
						76 19 11

1777	Fol.	Per Contra, Cr.					Fol.	L.	s.	d.
Jan. 3.	2	By tobacco – –					2	151	6	6¾

1777.	Fol.	Per Contra, Cr.	Pipes.	Mark.	Fol.	L.	s.	d.
Jan. 6.	3	By David Daisy, at 28l per pipe –	3	J. C.	3	84	0	0
—17.	5	By William Kerr, Esq; at 29i ditto –	7	J. C.	5	203	0	0
—31.		By balance unsold, at 26l 10s ditto –	2	J. C.	6	53	0	0
			12			340	0	0

1777.	Fol.	Per Contra, Cr.				
Jan. 4.	2	By Canary, to be paid the 12th instant	3	100	0	0

1777.	Fol.	Per Contra, Cr.	Gall.				
Jan. 21.	5	By cash, at 9s 2d *per* gallon	124	1	56	16	8
—31.		By balance unsold, at 8s 3d *per* gallon – –	352	6	145	4	0
			476		202	0	8

1777.	Fol.	Per Contra, Cr.	Bags.	lb.	Fol.	L.	s.	d.
Jan. 14	4	By William Goodluck –	26	854	4	35	11	8
—31.		By balance unsold, at 9½ d. *per* lb. –	48	1462	6	57	17	5
			74	2316		93	9	1

1777.	Fol.	Per Contra, Cr.				
Jan. 20.	5	By sundry accompts –			84	0	0

1777.	Fol.	Per Contra, Cr.	Hhds	C.	qr.	lb.	Mark.	Fol.	L.	s.	d.
Jan. 21.	5	By cash, at 39s 8d *per* cwt. –	12	38	3	8	E. E.	1	76	19	11
									76	19	11

	Fol.				Fol.	L.	s.	d.
		Broad Cloth, Dr.						
1777.			Pieces	Yards				
Jan. 10.	3	To cash at 14s *per* yard –	22	352	1	246	8	0
—31.		To profit and loss gained by this accompt –			5	12	5	4
			22	352		258	13	4
		Elliot, Elias, Dr.						
1777.								
Jan. 28.	6	To sundry accompts – –				72	9	4
		Bills receivable Dr.						
				Due.				
1777.								
Jan. 11.	3	To broad cloth for 1 on J. Foreſt		Feb. 14	4	100	0	0
—14.	4	To William Goodluck for 1 on Hern and Co.		Jan. 29.	4	54	8	0
						154	8	0
		Goodluck, William, Dr.						
1777.								
Jan. 14.	4	To sundry accompts -				125	8	6½
		Iriſh Linen, Dr.						
				Yards.				
1777.								
Jan. 14.	4	To broad cloth, at 1s 8d *per* yard		1376	4	114	13	4
		Geneva, Dr.						
				Gall.				
1777.								
Jan. 15.	5	To sundry accompts, at 5s 7½d *per* gallon - -		236		66	7	6
—31.		To profit and loss gained *per* this accompt -			5	4	8	6
						70	16	0

	Fol.	Per Contra, Cr.	Pieces	Yards	Fol.	L.	s	d.
1777.								
Jan. 11.	3	By ſundry accompts, at 15s per yard - -	12	190		144	0	0
— 14.	4	By Iriſh linen - -	10	162	4	114	13	4
			22	352		258	13	4

	Fol.	Per Contra, Cr.	Fol.	L.	s	d.
1777.						
Jan. 7.	3	By ſugar - -	3	72	9	4

	Fol.	Per Contra, Cr.	Fol.	L.	s	d.
1777.						
Jan. 22.	5	By caſh for 1 on Hern and Co -	1	54	8	0
— 24.	6	By cambricks for James Foreſt's note	5	100	0	0
				154	8	0

	Fol.	Per Contra, Cr.	Fol.	L.	s	d.
1777.						
Jan. 14.	4	By ſundry accompts - -		125	8	6½

	Fol.	Per Contra, Cr.	Yards,	Fol.	L.	s	d.
1777.							
Jan. 31.		By balance unſold, at 1s 8d per yard	1376	6	114	13	4

	Fol.	Per Contra, Cr	Gall.	Fol.	L.	s	d.
1777.							
Jan. 25.	6	By caſh, at 6s per gallon -	236	1	70	16	0
					70	16	0

	Fol.	*Ingram, John,* Dr.	Fol.	£.	s.	d.
1777. Jan. 20.	5	To caſh, in full - -	1	30	0	0
		Kerr, William, Eſq; Dr.				
1777. Jan. 17.	5	To ſundry accompts - -		289	8	0
				289	8	0
		Cambricks, Dr.				
			Pieces			
1777. Jan. 24.	6	To ſundry accompts, at 3l 11s 6d	32	114	8	0
		To ditto, at 5l 5s -	14	73	10	0
				187	18	0
		Profit and Loſs, Dr.				
1777. Jan. 20.	5	To David Daiſy, abated in compoſition	3	23	2	0
— 31	6	To houſe expences for this month	6	7	1	6
		To ſtock gain'd by 1 month's trading	1	51	6	4½
				81	9	10½
		Note, 1. When the Cr. ſide of this accompt exceeds the Dr. the difference is Gain: If the contrary, Loſs. In the former caſe, it is balanced by being made Dr. to Stock, and in the latter, Cr. by Stock.				
		Moneyleſs, Abraham, Dr.				
1777. Jan. 27.	6	To caſh lent him on bond for ſix months, at 5l *per cent.* -	1	500	0	0
		Muſlin, Dr.				
		Pieces Yards				
1777. Jan. 29.	6	To Richard Moody, at 3s 8½d *per yard* - - 26 520	6	96	8	4

	Fol.	Per Contra, Cr.	Fol.	L.	s.	d.
1777. Jan. 15	5	By geneva, due the 20th inſtant	4	30	0	0

	Fol.	Per Contra, Cr.	Fol.	L.	s.	d.
1777. Jan. 17.	5	By caſh, in part - -	1	189	8	0
—— 31.		By balance due on demand -	6	100	0	0
				289	8	0

	Fol.	Per Contra, Cr.	Pieces,	Fol.	L.	s.	d.
1777. Jan. 31.		By balance unſold, at 3l 11s 6d	32	6	114	8	0
		By ditto, at 5l 5s -	14	6	73	10	0
					187	18	0

	Fol.	Per Contra, Cr.	Fol.	L.	s.	d.
1777. Jan. 28.	6	By Elias Elliot abated me -	4	0	0	4
—— 31.		By Brandy gained - -	1	3	1	0
		By Oporto wine, ditto -	2	5	8	0
		By Liſbon wine, ditto - -	2	3	0	0
		By French wine, ditto - -	2	11	10	0
		By Tobacco, ditto - -	2	7	16	10½
		By Canary, ditto - -	3	22	0	0
		By Rum, ditto - -	3	5	13	8
		By Pepper, ditto - -	3	1	15	7
		By Sugar, ditto - -	3	4	10	7
		By Broad cloth, ditto - -	4	12	5	4
		By Geneva, ditto - -	4	4	8	6
				81	9	10½

Note, 2. Every line on this ſide, except the firſt, is brought from the Dr. ſide of that particular accompt, which is Dr. to Profit and Loſs.

	Fol.	Per Contra, Cr.	Fol.	L.	s.	d.
1777. Jan. 31.		By balance due to me July 27th	6	500	0	0

	Fol.	Per Contra, Cr.	Pieces	Yards	Fol.	L.	s.	d.
1777. Jan. 31.		By balance unſold, at 3s 8½d per yard - -	26	520	6	96	8	4

		Fol.	L.	s.	d.
	Moody, Richard, Dr.				
1777. Jan. 31.	To balance due to him, on demand	6	96	8	4
	House-expences, Dr.				
1777 Jan. 31.	To cash for sundry charges this month	1	7	1	6
	Balance, Dr.				
1777. Jan. 31.	To Cash remaining in hand -	1	1719	5	2¼
	To Oporto wine, at 61 15s *per* hogshead, for 7 hogsheads – –	2	47	5	0
	To Lisbon wine, 12 hogsheads, at 7l *per* do.	2	84	0	0
	To Canary wine, 2 pipes, at 26l 10s *per* pipe	3	53	0	0
	To Rum, 352 gallons, at 8s 3d *per* gallon	3	145	4	0
	To Pepper, 48 bags, containing 1462 lb. at 9½d *per* lb. - -	3	57	17	5
	To Irish linen, 1376 yards, at 1s 8d *per* yd.	4	114	13	4
	To William Kerr, Esq; due on demand	5	100	0	0
	To Cambricks, 32 pieces, at 3l 11s 6d *per* piece	5	114	8	0
	To ditto, 14 ditto, at 5l 5s ditto	5	73	10	0
	To Abraham Moneyless, *per* bond due 27th July next – – –	5	500	0	0
	To Muslin, 20 pieces, each 26 yards, containing 520 yards at 3s 8½d *per* yard	5	96	8	4
			3105	11	3¼

Note, 1. Every line on this side is brought from the Cr. side of that particular accompt, which is made Cr. by Balance.

2. The amount of this side is the whole of your present estate; from which if you subtract what you owe, which is on the Cr. side hereof, the difference is your neat stock, or what you are really worth.

3. This side, *viz.* the Dr. will be the first part of your inventory in a new set of books, and must be written in your Waste-Book, (after saying, *An inventory*, &c. *verbatim* as before:) the Second and Last part of the inventory is the Cr. side hereof, except the last line, from which the entries should be journaliz'd, and then posted from the Journal.

	Per Contra, Cr.	Fol.	L.	s.	d.
1777. Jan. 29.	By muſlin – –	5	96	8	4

	Per Contra, Cr.				
1777. Jan. 31.	By profit and loſs – –	5	7	1	6

Note, This accompt muſt be balanced by Profit and Loſs, and then placed on the Dr. ſide thereof.

	Per Contra, Cr.				
1777. Jan. 31.	By Edward Hyde due to him, to be paid the 2d February next –	1	50	0	0
	By William Hopper, Eſq; due on demand	2	256	10	0
	By John Berry, ditto –	2	151	6	6¾
	By Richard Moody, on demand –	6	96	8	4
	By Stock, for the neat proceed of my whole eſtate – –	1	2551	6	4¼
			3105	11	3¼

Note, 1. Every line on this ſide, except the laſt, is brought from the Dr. ſide of that particular accompt which is made Dr. to balance.

2. The amount of theſe articles is the ſum-total of what you owe; and is the ſecond part of your inventory in the opening of a new ſet of books.

3. The laſt line, where balance is credited by ſtock, ſhews what you are really worth when all your debts are paid: but when this ſide exceeds the Dr. you are the difference worſe than nothing.

4. Before you enter this accompt of balance in your Ledger, prepare a ſheet of paper, ruled in proper columns, like this, in which enter your accompts, till you find they balance, from which they may be tranſcribed.

End of the LEDGER, A.

1777.	Fol.	Cash, Dr.	Fol.	L.	s.	d.
Jan. 1.	1	To Stock - - -	1	2000	0	0
8.	3	To ſundry accompts -		68	0	0
10.	3	To John Willing, received in full	1	200	0	0
11.	3	To Broad cloth, received in part	4	44	0	0
13.	4	To Edward Trader, received in full	1	400	0	0
14.	4	To William Goodluck, received in part for ſundries -	4	71	0	6½
17.	5	To William Ker, Eſq; received in part	5	189	8	0
18.	5	To Brandy, in full - -	1	61	0	0
20.	5	To Dav. Daiſy, in full of a compoſition	3	60	18	0
21.	5	To ſundry accompts -		133	16	7
22.	5	To Bills receivable for 1 on Hern & Co.	4	54	8	0
25.	6	To ſundry accompts -		189	16	0
29.	6	To Tobacco, in full -	2	69	6	6¾
				3541	13	8¼

1777.	Fol.	Per Contra, Cr.	Fol.	L.	s.	d.
Jan 3.	1	By Brandy, paid in full -	1	57	19	0
—— -	1	By Oporto wine, paid in part	2	78	5	0
4.	2	By Canary, paid in part -	3	218	0	0
5.	2	By ſundry accompts -		288	0	6
8.	3	By William Newman, paid in full	1	100	0	0
10.	3	By Broad cloth, paid in full	4	246	8	0
13.	4	By Joſeph Cowley, paid in full	3	1	0	0
15.	5	By Geneva, paid in part -	4	36	7	6
20.	5	By John Ingram, paid in full	5	30	0	0
24.	6	By Cambricks, paid in part	5	87	18	0
27.	6	By Abra. Moneyleſs, lent on bond	5	500	0	0
28.	6	By Elias Elliot, paid in part	4	72	9	0
31.	6	By Houſe expences -	6	7	1	6
		By Balance in hand -	6	1719	5	2¼
				3541	13	8¼

End of the CASH-BOOK, A.

WASTE-BOOK. B.

EDINBURGH, 1st *February*, 1777.

An inventory of my whole eſtate, conſiſting of money, goods, and debts, owing to *and* by *me* W. P. *taken this day*, viz.

	L.	s.	d.	L.	s.	d.
J *Imprimis*, I Have in ready money	1719	5	2¼			
J *Item*, 7 hhds of Oporto wine at 6l 15s *per* hhd.	47	5	0			
J 12 hhds of Liſbon wine at 7l ditto	84	0	0			
J 2 pipes of Canary at 26l 10s *per* pipe	53	0	0			
J 352 gallons of rum at 8s 3d *per* gallon	145	4	0			
J 48 bags of pepper *qt.* 1462 lb. at 9½d *per* lb –	57	17	5			
J 1376 yards of Iriſh linen at 1s 8d *per* yard – –	114	13	4			
J 32 pieces of cambricks at 3l 11s 6d *per* piece – –	114	8	0			
J 14 ditto, ditto, 5l 5s ditto –	73	10	0			
J 20 pieces of muſlin, each 26 yards, *qt.* 520 yards at 3s 8½d *per* yard –	96	8	4			
J Will. Kerr, Eſq; owes me on demand	100	0	0			
J Abraham Moneyleſs, *per* bond, due 27th July next –	500	0	0			
				3105	11	3¼
I am indebted as follows, viz.						
J To Edward Hyde, to pay on the 2d. February next –	50	0	0			
J To William Hopper, on demand –	256	10	0			
J To John Berry, ditto –	151	6	6¾			
J To Richard Moody, on demand –	96	8	4			
				554	4	10¾
Bought of Edward Unwin						
J 50 Tons of Siberia iron at 16l 10s *per* ton – To pay in one month				825	0	0
2d.						
J Paid Edward Hyde in full –				50	0	0

William Adams, Thomas Quickwit, and myſelf having agreed to make a joint adventure to *Ireland*, have put into company what goods each of us has proper for that market, our due proportions of which we are to adjuſt afterwards with money:

Edinburgh, 2d *February* 1777.

viz.

	L.	s.	d.	L.	s.	d.
William Adams, 12 hhds of tobacco, *qt.* neat, 2 tons, 1 cwt. 3 qr. 16 lb. at 4l 13s 4d *per* cwt. –	195	10	0			
Thomas Quickwit, 300 reams of paper at 12s *per* ream –	180	0	0			
Myſelf, 10 tons Siberia iron at 17l *per* ton –	170	0	0			
I paid charges of ſhipping &c. –	5	2	0			
				550	12	0

Shipped the above on board the Betſy, Capt. O'Bryan, conſigned to Abraham Careful, *Merchant* in Dublin, to ſell for our accompt.

Note, 1. To journalize the above, you muſt make voyage to Dublin in comp. with William Adams, Thomas Quickwit and myſelf, each one third Dr. to Sundry accompts for the whole value of the goods and charges; then ſpecify theſe particular accompts, viz. To William Adams, and to Thomas Quickwit's accompts proper ſeparately, each for the reſpective goods put in and their value; To Siberia iron for the quantity put in yourſelf; and laſtly to Caſh for charges of ſhipping, &c.

2. Both William Adam's and Thomas Quickwit's accompts proper muſt be debited to their accompts in comp. for ⅓rd of the value of the ſaid voyage to Dublin.

Bought of William Silverſmith.

30 ſilver watches, at	11	15s	each	52	10	0
20 ditto	21	10s		50		
					102	10 ●

Which watches are on accompt of Thomas Zealous and myſelf, each *half*, to be paid for on demand, and of which I am to have the diſpoſal

Note, 1. Theſe watches being bought in comp. you muſt make *watches in comp.* with Thomas Zealous and myſelf, each half, Dr. to William Silverſmith for their quantity and value.

2. You muſt make your partner's *accompt current* Dr. to his *accompt in comp.* for his half ſhare of the value of the ſaid watches.

14.

Sold John Lute.

1000 yards of Iriſh linen at 1s 9d *per* yard					87	10 0
J For which I received in part						
A bill on Edward Poundage, Edinburgh value				50	0	0
The reſt due on demand				37	10	0
					87	10 ●

Edinburgh, 21st February 1777.

		L	s.	d.
	Sold for ready money.			
J	7 hhds of oporto wine, at 7l 8s *per* hhds	51	16	0
	24th			
J	Received of William Kerr, Esq; in full	100	0	0
	28th			
	Adjusted accompts this day with William Adams and Thomas Quickwit respecting our shares of the voyage to Dublin			
J	Thomas Quickwit paid to the former 3 10 8 I have paid him - - 8 8 8	11	19	4
J	Paid charges this month - -	9	10	2
	1st *March*			
J	Paid Edward Unwin in full - -	825	0	0
	3d.			
	Sold Edward Hyde, the 50 silver watches in company with Thomas Zealous and myself, at the following prices, *viz*,			
J	30 at *L*.2 2 *s* each 63 20 at 3 3 ditto 63	126	0	0
	Which I have received in cash			
J	Received of Edward Poundage in full for his draught	50	0	0
	7th			
J	Paid Richard Moody in full - -	96	8	4
	10th			
	Sold John Berry.			
J	20 tons of Siberia iron, at 17l 10s *per* ton -	350	0	0
	Received in cash - - 98 13 5¼ And for the rest of my balance, a draught on Edward Jones, London. Value 100	198	13	5¼
	11th			
	Bought of Edward Hyde, in company with D. M,Dowall and Thomas Ramsay, each ⅓			
	60 Hogsheads of Oporto wine at 6l 15s *per* hhd	405	0	0
J	D. M,Dowall has paid in - 130 0 0 Thomas Ramsay - - 100 I have given him an indorsement on Edward Jones for - - 100 And Cash - - 20 Also, We have given Edward Hyde our joint acceptance at 20 days, for - - 55	405	0	0

Edinburgh, 15th *March* 1777.

		L.	s.	d.
	Sold for ready money			
J	14 pieces of Cambricks, at 5l 12s *per* piece	78	8	0
	Sold John Bute.			
J	376 yards of Iriſh linen, at 1s 9½ *per* yard -	32	17	11
	19th			
	Sold for ready money.			
J	30 hhds. of our Oporto wine at 8l *per* hhd.	240	0	0
	24th			
J	Paid William Silverſmith in full, for our watches	102	10	0
	31ſt			
J	Received advice from Abraham Careful, merchant in Dublin, that the *Betſy* arrived ſafe, and that he has diſpoſed of our Cargo for ready money, the neat proceeds of which, deducting his commiſſion is 715l 0s 9$\frac{9}{10}$d *Iriſh*; which, *exchange* at 9¼ *per cent.* amounts in Sterling to - -	654	10	0
J	Paid charges this month - -	8	17	0
	2d *April*			
J	Drew on Abraham Careful at 20 days ſight. payable to Meſſrs. Readycaſh and Co. for 715l 0s 9$\frac{9}{10}$ exchange at 9¼ *per cent.* for which I have received value	654	10	0
	3d			
J	My commiſſion on the neat proceeds of our adventure to Dublin, at ½ *per cent* amounts to -	3	5	6
	4th			
J	Paid Edward Hyde our joint acceptance -	55	0	0
	8th			
J	Paid David M'Dowall to accompt -	60	0	0
	—— T. Ramſay ditto -	60	0	0
	12th			
J	Received of John Bute in full - -	70	7	10
	19th			
	Sold for ready money.			
J	48 bags pepper *qt.* 1462 lb. at 10½d *per* lb. 63 19 3 2 pipes Canary, at 29l *per* pipe 58 0 0	121	19	3
	20th			
	Sold William Kerr, Eſq;			
J	30 hhds. (being the remainder) of our Oporto wine at 7l 18s *per* hhd - -	237	0	0
	Due on demand			

Edinburgh, 20th *April* 1777.

		L.	s.	d.
	Having ſold all our Oporto wine,			
J	My commiſſion at 11 *per cent.* amounts to	4	15	6
	26th			
	Adjuſted accompts with William Adams and Thomas Quickwit on accompt of our voyage to Dublin			
J	To the former I have paid – 217 1 6 and to William Adams – – 217 1 6 Which balances our accompt	434	3	0
	27th			
	Sold for ready money			
J	20 pieces muſlin, *qt.* 520 yards at 4s *per* yard	104	0	0
	28th			
	Received of William Kerr Eſq;			
J	In full for our Oporto wine – –	237	0	0
	29th			
J	Paid William Hopper, Eſq; in full –	256	10	0
J	Paid charges this month – –	12	18	3

End of the WASTE-BOOK, B.

JOURNAL. B.

EDINBURGH, 1st February, 1777.

		L.	s.	d.	L.	s.	d.
	Sundry accompts Drs. to *Stock*	3105	11	3¼			
1	Caſh in ready money –	1719	5	2¼			
1	Oporto wine, for 7 hhds at 61 15s *per* hhd – –	47	5	0			
1	Liſbon wines, for 12 hhds at 71 ditto	84	0	0			
1	Canary, for 2 pipes at 261 10s *per* pipe	53	0	0			
1	Rum, for 352 gallons at 8s 3d *per* gallon	145	4	0			
1	Pepper, for 48 bags *qt.* 1462 lb. at 9½ *per* lb. – –	57	17	5			
1	Iriſh Linen, for 1376 yards at 1s 8d *per* yard – –	114	13	4			
2	Cambricks, for 32 pieces at 3l 11s 6d *per* piece – –	114	8	0			
	Ditto, for 14 ditto at 5l 5s ditto –	73	10	0			
2	Muſlin, for 20 pieces, each 26 yards *qt.* 520 yards at 3s 8½d *per* yard –	96	8	4			
2	William Kerr, Eſq; on demand –	100	0	0			
2/1	Abraham Moneyleſs, *per* bond due 27th July next – –	500	0	0			
					3105	11	3¼
1	*Stock Dr. to ſundry accompts* –	554	4	10¾			
2	To Edward Hyde, to pay 2d February next – –	50	0	0			
2	To William Hopper, on demand –	256	10	0			
2	To John Berry, on demand –	151	6	6¾			
2	To Richard Moody on demand –	96	8	4			
					554	4	10¾
2	Siberia iron Dr. to Edward Unwin –	825	0	0			
3	For 50 tons at 16l 10s *per* ton –				825	0	0
	2d.						
2	Edward Hyde Dr. to Caſh –	50	0	0			
1	Paid him in full –	–			50	0	0

Edinburgh, 2d February, 1777.

		L.	s.	d.	L.	s.	d.
3 –	Voyage to Dublin in company with William Adams and Thomas Quickwit Dr. to ſundries – –	550	12	0			
3	To William Adams' accompt proper for 12 hhds of tobacco, *qt.* 2 tons 1 cwt. 3qr 16 lb. at 4l 13s 4d *per* cwt. –	195	10	0			
3	To Thomas Quickwits' accompt proper, for 300 reams of paper at 12s *per* ream	180	0	0			
2	To Siberia iron, for 10 tons at 17l *per* ton	170	0	0			
1	To Caſh, for charges of ſhipping –	5	2	0			
					550	12	0
	Conſigned to Abraham Careful per *the Betſy.*						
3 –	William Adams' accompt proper, Dr. to his accompt in company, –	183	10	8			
3	For his ⅓ of the voyage to Dublin –				183	10	8
3 –	Thomas Quickwits' accompt proper, Dr. to his accompt in Company, –	183	10	8			
3	For his ⅓ of the voyage to Dublin –				183	10	8
	12th.						
4 –	Watches in comp. with Thomas Zealous and myſelf, each half, Dr. to William Silverſmith –	102	10	0			
4	For 30 ſilver ones at 1l 15s each –	52	10	0			
	2 ditto, 2l 10s ditto –	50	0	0			
					102	10	0
4 –	Thomas Zealous' accompt current, Dr. to his accompt in company, –	51	5	0			
4	For his half of the above watches –				51	5	0
	14th.						
	Sundry accompts Drs. to *Iriſh linen* –	87	10	0			
4	Bills receivable, for one on Edward Poundage, in part for 1000 yards at 1s 9d *per* yard – –	50	0	0			
4/1	John Bute, for the balance due on demand	37	10	0			
					87	10	0
	21ſt.						
1	Caſh, Dr. to Oporto wine –	51	16	0			
1/1	For 7 hogſheads at 7l 8s *per* hogſhead –				51	16	0

Edinburgh, 24th *February*, 1777.

		L.	s.	d.	L.	s.	d.
1/2	Cash Dr. to William Kerr, Esq; –	100	0	0			
	Received of him in full –				100	0	0
	28th.						
3	William Adams' accompt proper Dr. to						
–	fundries – –	11	19	4			
3	To Thomas Quickwit's accompt proper,						
	paid by him – –	3	10	8			
1	To Cash, paid by me – –	8	8	8			
					11	19	4
4	Charges of merchandize, Dr. to Cash –	9	10	2			
–							
1	Expended on my trade this month –				9	10	2
	March 1st.						
3	Edward Unwin, Dr. to Cash –	825	0	0			
–							
1	Paid him in full – –				825	0	0
	3d.						
1/4	Cash Dr. to Watches in company with						
	Thomas Zealous and myself, –	126	0	0			
	For 30 sold to Edward Hyde, at 2l 2s each	63	0	0			
	And 20 ditto, at 3l 3s each –	63	0	0			
					126	0	0
4	Thomas Zealous' accompt in company, Dr.						
–	to his accompt current –	63	0	0			
4	For his half of the above watches –				63	0	0
1	Cash Dr. to bills receivable –	50	0	0			
–							
4	For one on Edward Poundage –				50	0	0
	7th.						
2	Richard Moody Dr. to Cash –	96	8	4			
–							
1	Paid him in full – –				96	8	4
	10th.						
2	John Berry Dr. to Siberia iron –	350	0	0			
–							
2	For 20 tons at 17l 10s *per* ton –				350	0	0

Edinburgh, 10th *March*, 1777.

		L.	s.	d.	L.	s.	d.
	Sundry accompts Drs. to *John Berry* –	198	13	5¼			
4	Bills receivable, for one on Edward Jones	100	0	0			
½	Cash, for the balance –	98	13	5¼			
					198	13	5¼
	11th.						
5	porto wine in company with D. M,Dowall,						
–	and Thomas Ramsay, Dr. to sundries	405	0	0			
5	To D. M,Dowall's accompt proper, paid by him in part for 60 hogsheads at 6l 15s *per* hogshead –	130	0	0			
5	To Thomas Ramsay's ditto –	100	0	0			
4	To bills receivable for one on Edward Jones – –	100	0	0			
1	To Cash paid by me –	20	0	0			
2	To Edward Hyde for our joint acceptance at 20 days – –	55	0	0			
					405	0	0
5	D. M,Dowall's accompt proper Dr. to his						
–	accompt in company, –	135	0	0			
5	For his ⅓ of Oporto wine in company –				135	0	0
5/5	Thomas Ramsay's ditto –				135	0	0
	15th.						
	Cash Dr. to Cambricks –	78	8	0			
½	For 14 pieces at 5l 12s *per* piece –				78	8	0
	18th.						
4/1	John Bute, Dr. to Irish linen –	32	17	11			
	For 376 yards at 1s 9½d *per* yard –				32	17	11
	19th.						
1	Cash Dr. to Oporto wine in company with						
–	David M,Dowall and T. Ramsay	240	0	0			
5	Received for 30 hhds at 8l *per* hhd. –				240	0	0
	24th						
4/1	William Silversmith, Dr. to Cash	102	10	0	102	10	0
	Paid him in full – –						
	31st.						
5	*Abraham Careful, our accompt current*, Dr. to *Voyage*						
–	*to* Dublin, *in company with William Adams and Thomas Quickwit* – –	654	10	0			
3	Received advice that the Betsy arrived safe, and that he (Careful)had disposed of our Cargo for ready money, the neat proceeds of which, amounts to 715l 0s 9 2/10d *Irish*, which in Sterling, exchange at 9¼ *per cent.* is				654	10	0

Edinburgh, 31ſt *March* 1777.

		L.	s.	d.	L.	s.	d.
4/1	Charges of merchandize Dr. Caſh - -	8	17	0			
	Expended this month - -				8	17	0
	2d *April*.						
1	*Caſh* Dr. to Abraham Careful our accompt						
5	current - - -	654	10	0			
	Drew on him, payable to Readycaſh and Co. or order, at 20 days ſight for 715l 0s 9 2/10d exchange at 9 1/4 *per cent.* -				654	10	0
	3d.						
3	Voyage to Dublin in Company with William						
6	Adams and Thomas Quickwit Dr. to Profit and loſs - -	3	5	0			
	For my compoſition - -				3	5	6
	4th.						
2/1	Edward Hyde Dr. to Caſh - -	55	0	0			
	Paid our joint acceptance -				55	0	0
	8th						
	Sundries Drs. to Caſh -	120	0	0			
5	*D. M,Dowall's accompt proper*, paid to him	60					
5/1	*T. Ramſay's ditto* -	60					
					120	0	0
	12th						
1/4	Caſh Dr. to John Bute - -	70	7	11			
	Received of him in full - -				70	7	11
	19th						
1	Caſh Dr. to ſundries - -						
1/1	To *Pepper* for 48 bags *qt.* 1462 lb. at 10 1/2d	63	19	3			
	To *Canary* for 2 pipes at 29l *per* pipe	58					
					121	19	3
	20th						
2	William Kerr, Eſq; Dr. to Oporto wine in						
5	company with David M,Dowall and T.						
	Ramſay, - -	237	0	0			
	For 30 Hhds (being the remainder) at 7l 12s *per* hhd. due on demand - -				237	0	0
5	Oporto wine in company with D. M,Dowall						
6	and T. Ramſay, Dr. to Profit and loſs	4	15	6			
	For my commiſſion at 1l *per cent.* -				4	15	6

Edinburgh, 26th *April* 777.

		L.	s.	d.	L.	s.	d.
3	Sundries Drs to Caſh - -	434	3	0			
	William Adam's accompt proper, paid the balance due to him - -	217	1	6			
3	Thomas Quickwit's ditto - -	217	1	6			
					434	3	0
	27th						
1	Caſh Dr to Muſlin - -	104	0	0			
1	For 20 pieces *qt.* 520 yards, at 4s *per* yard				104	0	0
	28th						
1	Caſh Dr. to William Kerr, Eſq; -	237	0	0			
1	Received of him in full -				237	0	0
	29th						
1	William Hopper, Eſq; Dr. to Caſh -	256	10	0			
1	Paid him in full -				256	10	0
	30th						
4	Charges of merchandize, Dr. to Caſh	12	18	3			
1	Expended this month - -				12	18	3

End of the JOURNAL. B.

THE LEDGER.

A

	Fol.
Adams' William accompt prop.	3
Do. in company	3

B.

	Fol.
Berry, John	2
Bills receivable	4
Bute, John	4
Balance	6

C.

	Fol.
Cash	1
Canary	1
Cambricks	2
Careful, Abraham our accompt current.	5
Charges of merchandize	4

D.

	Fol.
Dowall, M'Davids' Accompt proper	5
Do. in company	5

E.

Fol.

F.

Fol.

G.

Fol.

H.

	Fol.
Hyde, Edward	2
Hopper, William	2

I.

	Fol.
Irish linen	1

K.

	Fol.
Kerr, William, Esq;	2

L.

	Fol.
Lisbon wine	1

M.

	Fol.
Muslin	2
Moneyless, Abr.	2
Moody, Richard	2

N.

Fol.

O.

Fol.

Oporto wine - - 1
Oporto wine in company 5

P.

Fol.

Pepper - - 1
Profit and loss 6

Q.

Fol.

Quickwit, Thomas accompt proper 3
Do. in company - - 3

R.

Fol.

Rum - - 1
Ramsay, Thomas accompt proper - 5
Do. accompt in company 5

S.

Fol.

Stock - - - 1
Siberia iron - 2
Silversmith, William - 4

T.

Fol.

U.

Fol

Unwin, Edward 3
Voyage to Dublin - 3

W.

Fol.

Watches in company - 4

X.

Fol.

Y.

Fol.

Z.

Fol.

Zealous, Thomas accompt current - - 4
Do. in company - 4

	Fol.	*Cash*, Dr.	Fol.	L.	s.	d.
1777 Feb. 1.	1	To Stock - - -	1	1719	5	2¼
	5	To sundries received this month as by the Cash Book - - -				
March		To ditto - -				
April		To ditto - -				
1777. Feb. 1.	1	*Stock*, Dr. To sundry accompts -		554	4	10¾
Apr 30		To Balance the neat of my estate	6			
		Oporto wine, D				
1777. Feb. 1.	1	To Stock, at 6l. 15s *per* hhd — Hhds 7	1	47	5	0
Ap. 30.		To profit and loss, gained by this accompt	6			
		Lisbon wine, Dr.				
1777. Feb. 1.	1	To stock, at 7l *per* hhd. — Hhds. 12	1	84	0	0
		Canary, Dr.				
1777. Feb. 1.	1	To stock, at 26l 10s *per* pipe — Pipes. 2	1	53	0	0
Ap. 30.		To profit and loss, gained by this accompt	6			
		Rum, Dr				
1777. Feb. 1.	1	To stock, at 8s 3d *per* gallon — Gallons. 352	1	145	4	0
		Pepper, Dr.				
1777. Feb. 1	1	To Stock, at 9d½ *per* lb. — Bags. 48 — lb. 1462	1	57	17	5
Apr. 30		To profit and loss, gained by this accompt	6			
		Irish linen, Dr.				
1777. Feb. 1.	1	To Stock, at 1s 8d *per* yard — Yds. 1376	1			
Apr. 30		To profit and loss, gained by this accompt	6			

1777.	Fol.	*Per Contra*, Cr.	Fol.	L.	s.	d.
Feb. March April		By ſundries paid this month as by the Caſh Book. - - - -				
—30.		By ditto - - -				
		By balance, in hand - -	6			
1777.		*Per Contra*, Cr.				
Feb. 1.	1	By ſundry accompts - -		105	1	3½
Ap. 30.		By profit and loſs gained -	6			
1777.		*Per Contra*, Cr. *Hhds.*				
Feb. 21.	3	By caſh at 7l 8s *per* hhd. for 7	1	51	10	
1777.		*Per Contra*, Cr. *Hdds.*				
Ap. 30.		By balance, unſold at 7l. *per* hhd. for - - 12	6	84	0	
1777.		*Per Contra*, Cr. *Pipes.*				
Ap. 19	1	By caſh at 29l *per* pipe for 2	1	58	0	0
1777.		*Per Contra*, Cr. *Gal.*				
Ap. 30.		By balance, unſold at 8s 3d *per* gallon - 352	6	145	4	0
1777.		*Per Contra*, Cr. *Bags.* *lb.*				
Apr. 19	5	By caſh at 10½d *per* lb. 48 1462	1	63	19	3
1777.		*Per Contra*, Cr. *Yds.*				
Feb. 14.	2	By ſundry accompts at 1s 9d *per* yard - - for 1000		87	10	0
Mar. 18	4	By John Bute, at 1s 9d *per* yd. for 376	4	32	17	11

	Fol.	*Cambricks* Dr.	Pieces	Fol.	L.	s.	d.
1777.							
Feb. 1.	1	To Stock, at 3l 11s 6d *per* piece	32	1	114	8	0
		To ditto, at 5l 5s ditto	14	1	73	10	0
Apr. 30		To Profit and loſs, gained by this accompt – –		6			

		Muſlin, Dr.	Pieces	Yards				
1777.								
Feb. 1.	1	To Stock, at 3s 8½d *per* yd.	20	520	1	96	8	4
Apr. 30	5	To Profit and Loſs, gained by this accompt – –			6			
						104	0	0

		William Kerr, Eſq; Dr.					
1777.							
Feb. 1	1	To Stock, due on demand –		1	100	0	0
Apr. 20	5	To Oporto wine in Company -		5	237		0

		Abraham Moneyleſs, Dr.					
1777.							
Feb. 1.	1	To Stock, *per* bond, due 27th July next		1	500		0

		Edward Hyde, Dr.					
1777.							
Feb. 2.	1	To Caſh paid him in full –		1	50	0	0
Apr. 4.	5	To ditto, paid our joint acceptance		1	55	0	0

		William Hopper, Dr.					
1777.							
Ap. 29.	6	To Caſh, paid him in full		1	256	10	0

		John Berry, Dr.					
1777.							
Mar. 10	3	To Siberia iron, at 17l 10s *per* ton, for 20 tons – – –		2	350	0	0
					350	0	0

		Richard Moody, Dr.					
1777.							
Mar. 7.	3	To Caſh – -		1	96	8	4

		Siberia Iron, Dr.	Tons				
1777.							
Feb. 1.	1	To Edward Unwin, at 16l 10s *p.* ton	50	3	825	0	0
Apr. 30		To Profit and Loſs, gained by this accompt – –		6			

	Fol.	Per Contra,	Cr. Pieces.	Fol.	L.	s.	d.
1777							
Mar. 15	4	By cash at 5l 12s *per* piece for	14	1	78	8	0
Apr. 30		By balance, unsold at 3l 11s 6d *per* piece	32	6	114	8	0

		Per Contra,	Cr. Pieces	Yards			
1777							
Apr. 27	6	By Cash at 4s *per* yard	20	520	1	104	0	0

		Per Contra,	Cr.			
1777.						
Feb. 24	3	By Cash in full – – –	1	100	0	0
Apr. 28	6	By Cash in full -	1	237	0	0

		Per Contra	Cr.			
1777.						
Apr. 30		By Balance, due - -	6	500	0	0

		Per Contra,	Cr.			
1777.						
Feb 1.	1	By Stock, due 2nd instant –	1	50	0	0
Mar. 11	4	By Oporto wine in comp. at 20 days	5	55	0	0

		Per Contra,	Cr.			
1777.						
Feb. 1.	1	By Stock, due on demand –	1	256	10	0

		Per Contra,	Cr.			
1777.						
Feb. 1.	1	By Stock, due on demand –	1	151	6	6¾
Apr. 30		By Balance, due –	6			
				350	0	0

		Per Contra,	Cr.			
1777.						
Feb. 1.	1	By Stock, due on demand –	1	96	8	4

		Per Contra,	Cr. Tons				
1777.							
Feb. 2.	2	By *voy.* to Dublin in *Co.* at 17l *p.* ton	10	3	170	0	0
Mar. 10	3	By John Berry, at 17l 10s *per* ton	20	2	350	0	0
Apr. 30		By Balance, unsold at 16l 10s *p.* ton	20	6			

1777.	Fol.	*Edward Unwin,* Dr.	Fol.	L.	s.	d.
Mar 3.	1	To Cash in full –	1	825	0	0
1777.		*Voyage to Dublin in company,* Dr.				
Feb. 2.	2	To sundries by the Betsy –		550	12	0
Apr. 3.	5	To profit and loss for my commission	6	3	15	6
		To William Adams' accompt in company, for his ⅓ gain'd –	3			
		To Thomas Quickwit's accompt in company, for his ⅓ gain'd –	3			
		To profit and loss for my ⅓ gain'd –	6			
1777.		*William Adams' accompt proper,* Dr.				
Feb. 2.	2	To his accompt in company, for his ⅓ of the voyage to Dublin –	3	183	10	8
—28.	3	To sundries paid to him –		11	19	4
Ap. 26.	6	To cash – –	1	217	1	6
				412	11	6
1777.		*Thomas Quickwit's accompt proper,* Dr.				
Feb. 2.	2	To his accompt in company, for his ⅓ of the voyage to Dublin –	3	183	10	8
Ap. 26.	6	To cash – –	1	217	1	6
				400	12	2
1777.		*William Adams' accompt in Co.* Dr.				
Mar 31.		To ditto his accompt proper, for his ⅓ of neat proceeds –	3	217	1	6
				217	1	6
1777.		*Thomas Quickwit's accompt in Co.* Dr.				
Mar 31.		To ditto his accompt proper, for his ⅓ of neat proceeds –	3	217	1	6
				217	1	6

1777.	Fol.	*Per Contra* Cr.	Fol.	L.	s.	d.
Feb. 1.	1	By Siberia iron, due in one month -	2	825	0	0
1777.		*Per Contra,* Cr.				
Mar 31.	4	By Abraham Careful, our accompt current - -	5	654	10	0
1777.		*Per Contra,* Cr.				
Feb. 2.	2	By voyage to Dublin in company, for 2 ton. 1 cwt. 3 qr. 16 lb. iron -	3	195	10	0
Mar 31.		By his accompt in Co. for neat proceeds	3	217	1	6
				412	11	6
1777.		*Per Contra,* Cr.				
Feb. 2.	2	By voyage to Dublin in company, for 300 reams of paper -	3	180	0	0
— 28.	3	By Will. Adams' accompt proper paid him	3	3	10	8
Mar 31.		By his accompt in Co. for neat proceeds	3	217	1	6
				490	12	2
1777.		*Per Contra,* Cr.				
Feb. 2.	2	By his accompt proper, for his $\frac{1}{3}$ of voyage to Dublin -	3	183	10	8
Mar 31.		By Voyage to Dublin in company, for his $\frac{1}{3}$ gained -	3	33	10	10
				217	1	6
1777.		*Per Contra,* Cr.				
Feb. 2.	2	By his accompt proper, for his $\frac{1}{3}$ of voyage to Dublin -	3	183	10	8
Mar 31.		By voyage to Dublin in company, for his $\frac{1}{3}$ gained -	3	33	10	10
				217	1	6

	Fol.			Fol.	L.	s.	d.
		Watches in Co. with Thomas Zealous and myself, each half, Dr.	*Watches*				
1777.							
Feb. 12.	2	To William Silverſmith, at 1l 15s each for –	30	4	52	10	0
Mar. 3.		To ditto, at 2l 10s each for –	20	4	50	0	0
		To Thomas Zealous' accompt in Co. for his ½ gain'd –		4			
		To profit and loſs for my ½ gain'd –		6			
					126	0	0
1777.		*William Silverſmith,* Dr.					
Mar 24.	4	To Caſh, in full –		1	102	10	0
1777.		*Thomas Zealous' accompt current,* Dr.					
Feb. 12.	2	To his accompt in Co. for his half of watches bought of William Silverſmith		4	51	5	0
Ap. 30.		To balance, due to him –		6			
1777.		*Thomas Zealous' accompt in Co.* Dr.					
Mar. 3.	3	To his accompt current, for his half of watches ſold Edward Hyde –		4	63	0	0
					63	0	0
1777.		*Bills receivable,* Dr.					
Feb. 14.	2	To Iriſh linen, for one on Edward Poundage, Edinburgh	*Due.* 3d Mar.	1	50	0	0
Mar 10.	4	To John Berry, for one on Edward Jones, London,	26th do.	2	100	0	0
					150	0	0
1777.		*John Bute,* Dr.					
Feb. 14.	2	To Iriſh linen, due on demand –		1	37	10	0
Mar 18.	4	To Iriſh linen, at 1s 9d *per* yard, for 376 yards –		1	32	17	11
					70	7	11
1777.		*Charges of Merchandize,* Dr.					
Feb.	3	To Caſh, expended this month –		1	9	10	2
Mar.	5	To ditto, ditto –		1	8	17	0
Apr.	6	To ditto, ditto –		1	12	18	3
					31	5	5

	Fol.	Per Contra, Cr.	Watches	Fol.	L.	s.	d.
1777.							
Mar 3.	3	By caſh, ſold Edward Hyde, at 2l 2s each –	30	1	63	0	0
		By ditto, ditto, at 3l 3s each	20	1	63	0	0
					126	0	0
1777		Per Contra, Cr.					
Feb. 12.	2	By watches in Co. with Thomas Zealous and myſelf, each half –		4	102	10	0
1777.		Per Contra, Cr.					
Mar. 3	3	By his accompt current, for his half of watches ſold Edward Hyde –		4	63	0	0
1777.		Per Contra, Cr.					
Feb. 12.	2	By his accompt current, for his half of watches bought of William Silverſmith		4	51	5	0
Mar. 3.	3	By watches in Co. gained –		4	11	15	0
					63	0	0
1777.		Per Contra, Cr.					
Mar. 3	3	By caſh, for one on Edward Poundage		1	50	0	0
— 11.	4	By Oporto wine in Co. for one on Edward Jones –		5	100	0	0
					150	0	0
1777.		Per Contra, Cr.					
Ap. 12.	5	By caſh in full –		1	70	7	11
					70	7	11
1777.		Per Contra, Cr.					
Ap. 30.		By profit and loſs, for –		6	31	5	5
					31	5	5

	Fol.		Fol.	L.	s.	d.
		Oporto Wine in Company with David M,Dowall and T. Ramsay Dr.				
				Hhds		
1777.						
Mar. 11	4	To Sundries at 61 15s *per* hhd. for	60	405	0	0
Apr. 20.	5	To Profit and Loss for my commission	6	4	15	6
— 30.		To D. M,Dowall's accompt in Co. for his $\frac{1}{3}$ of the gain - -	5			
— 30		To T. Ramsay's ditto for ditto	5			
		To Profit and Loss for my share of ditto	6			
				477	0	0
		D. M,Dowall's accompt proper, Dr.				
1777.						
Mar. 11	4	To *ditto's accompt in Co.* for $\frac{1}{3}$ of Oporto wine - - -	5	135	0	0
Apr. 8.	5	To Cash - -	1	60	0	0
— 30.		To Balance, due to him -	6			
		T. Ramsay's accompt proper, Dr.				
1777.						
Mar. 11	4	To do's accot. in Co. for $\frac{1}{3}$ of Oporto w.	5	135	0	0
Apr. 8.	5	To Cash - -	1	60	0	0
— 30.		To Balance, due to him -	6			
		D. M,Dowall's accompt in Co. Dr.				
1777.						
Mar. 19	4	To his accompt proper for $\frac{1}{3}$ of wine, sold for ready money - -	5	80	0	0
Apr. 20		To do. for ditto sold Will. Kerr, Esq;	5	79	0	0
				159	0	0
		T. Ramsay's accompt in Co. Dr.				
1777.						
Mar. 19		To his accompt proper for $\frac{1}{3}$ of wine sold for ready money - -	5	80	0	0
Apr. 20		To do. for ditto sold Will. Kerr, Esq;	5	79	0	0
				159	0	0
		Abraham Careful, *our accompt current* Dr.				
1777.						
Mar. 31	4	To voyage to Dublin, *in Co.* for neat proceeds - -	3	654	10	0

	Fol.	*Per Contra,* Cr.	Hhds	Fol.	L.	s.	d.
1777.							
Mar. 19	4	By Cash at 8l *per* hhd, for	30	1	240	0	0
Apr. 20	5	By Will. Kerr, Esq; at 7l 18s *per* hhd, for – –	30	2	237	0	0
					477	0	0

	Fol.	*Per Contra,* Cr.	Fol.	L.	s.	d.
1777.						
Mar. 11	4	By Oporto wine in Comp. paid by him	5	130	0	0
—— 19.		By his accompt in Co. for his $\frac{1}{3}$ of wine sold for ready money – –	5	80	0	0
Apr. 20		By ditto for do. sold William Kerr, Esq;	5	79	0	0

	Fol.	*Per Contra,* Cr.	Fol.	L.	s.	d.
1777.						
Mar. 11	4	By Oporto wine in Comp. paid by him	5	100	0	0
—— 19.		By his accompt in Co. for his $\frac{1}{3}$ of wine sold for ready money –	5	80	0	0
Apr. 20		By ditto for do. sold William Kerr, Esq;	5	79	0	0

	Fol.	*Per Contra,* Cr.	Fol.	L.	s.	d.
1777.						
Mar. 11	4	By his accompt proper for $\frac{1}{3}$ of Oporto wine –	5	135	0	0
Apr. 20		By ditto ditto for $\frac{1}{3}$ of my commission	5	1	11	10
		By Oporto wine in Co. for his $\frac{1}{3}$ of the gain	5	22	8	2
				159	0	0

	Fol.	*Per Contra,* Cr.	Fol.	L.	s.	d.
1777.						
Mar. 11	4	By his accompt proper for $\frac{1}{3}$ of Oporto wine – – –	5	135	0	0
Apr. 20		By ditto ditto for $\frac{1}{3}$ of my comission	5	1	11	10
		By Oporto wine in Co. for his $\frac{1}{3}$ of the gain	5	22	8	2
				159	0	0

	Fol.	*Per Contra,* Cr.	Fol.	L.	s.	d.
1777						
April 2.	5	By Cash, for my draught on Ready cash at 20 days sight, for 715l 0s $9\frac{2}{10}$d exchange at $9\frac{1}{4}$ *per cent* =	1	654	10	0

	Fol.	*Profit and Loſs*, Dr.	Fol.	L.	s.	d.
1777. Apr. 30		To Charges of merchandize, for	4	31	5	5
		To Stock gained ſince the 1ſt of February				
		Balance, Dr.				
1777. Apr. 30		To Caſh, remaining in hand –	1			
		To Liſbon wine, for 12 hhds, at 7l *per* hhd – –	1			
		To Rum, for 352 gallons at 8s 3d *per* gallon – –	1			
		To Cambricks for 32 pieces at 3l 11s 6d *per* piece – – –	2			
		To Abraham Moneyleſs, by bond, due 27th July next – –	2			
		To John Berry, on demand –	2			
		To Siberia iron, at 16l 10s *per* ton for 20 tons	2			
		N. B. It was thought proper, for the exerciſe, and particular inſtruction of the ſtudent, to leave the balancing of the Ledger.				

Fol.		Fol.	L	s.	d.
	Per Contra, Cr.				
1777.					
April 3.	By Voyage to Dublin for my commiſſion	3			
— 5.	By Voyage to Dublin, for my ⅓ gained	3			
	By Watches in Company gained	4			
— 20.	By Oporto wine in Co. for my commiſſion	5			
	By Oporto wine in Company gained	5			
— 30.	By Oporto wine gained –	1			
	By Canary, gained – -	1			
	By Pepper, gained - -	1			
	By Iriſh linen, gained - -	1			
	By Cambricks, gained –	2			
	By Muſlin, gained – -	2			
	By Siberia iron, gained –	2			
	Contra, Cr.				
	By Thomas Zealous' accompt proper, due to him – –	2			
	By D. M,Dowall's accompt proper, do.	5			
	By T. Ramſay's accompt proper, do.	5			
	By Stock, the neat of my Eſtate	1			

End of the LEDGER, B.

1777.		Fol.	L.	s.	d.	1777.		Fol.	L.	s.	d.
Feb. 1.	To Stock, brought from the laſt month - -	1	1719	5	2¼	Feb. 2.	By Edward Hyde in full -	2	50	0	0
—— 21.	To Oporto wine in full -	1	51	16	0		By Voyage to Dublin in Company, for charges - -	3	5	2	0
—— 24.	To Will. Kerr, Eſq; in full	2	100	0	0	—— 28.	By Will. Adams' accompt proper	3	8	8	8
							By Charges of Merchandize this month - -	4	9	10	2
Mar. 3.	To Watches in Co. with T. Zealous	4	126	0	0	Mar. 1.	By Edward Unwin in full	3	825	0	0
—— 10.	To Bills receivable, for 1 on Edward Poundage -	4	50	0	0	—— 7.	By Richard Moody in full	2	96	8	4
—— 11.	To John Berry in full -	2	98	13	5¼	—— 11.	By Oporto wine in company	1	20	0	0
—— 15.	To Cambricks in full -	2	78	8	0	—— 24.	By William Silverſmith in full	4	102	10	0
—— 19.	To Oporto wine in Company	5	240	0	0		By Charges of Merchandize this month - -	4	8	17	0
							By E. Hyde, paid our joint accept.	2	55	0	0
April 2.	To Abraham Careful, our accompt current - -	5	654	10	0	Apr. 4.	By Sundry accompts -		120	0	0
—— 12.	To John Bute, received in full	4	70	7	11	—— 8.	By Sundry accompts -		434	3	9
—— 19.	To Sundries - -	2	121	19	3	—— 26.	By William Hopper in full	2	256	10	0
—— 27.	To Muſlin in full - -	2	104	0	0	—— 29.	By Charges of Merchandize this month - - -	4	12	18	3
—— 28.	To W. Kerr, Eſq; received in full	2	237	0	0	—— 30.	By Balance in hand -	6			

End of the CASH-BOOK, B.

GENERAL RULES *for applying the terms* DR. *and* CR. *of* PROPER *and* PARTNERSHIP *or* COMPANY ACCOMPTS, *in* BOOK-KEEPING *by* DOUBLE ENTRY.

I. *Of* PROPER ACCOMPTS.

RULE I.

"A Thing received upon truſt, is Dr. to the perſon of whom it is received.

II. The perſon to whom a thing is delivered upon truſt, is Dr. to the thing delivered.

III. A thing received, is Dr. to the thing given for it.

IV. In antecedent and ſubſequent caſes, parts that are the reverſe of one another in the nature of the thing, are alſo oppoſed in reſpect of terms.

V. In caſes where perſonal or real Drs. or Crs. are wanting, the defect muſt be ſupplied by fictitious ones.

VI. In complex caſes, the ſundry Drs. or Crs. are to be made out from the preceding rules jointly taken."

II. *Of* COMPANY ACCOMPTS.

1. *Myſelf keeping the accompt, and having the diſpoſal of the goods.*

CASE. I.

"WHEN goods in company are bought by me for ready money;

RULE, Dr. thoſe goods for the coſt, and charges (if there be any) Cr. caſh: Then Dr. partner's accompt current, (or proper) Cr. his accompt in company for his ſhare due to me.

CASE 2. When goods in company are bought by me on truſt;

RULE, Dr. thoſe goods for the coſt, and charges (if there be any) Cr. the ſelling man: Then Dr. partner's accompt current, Cr. his accompt in company for his ſhare due to me.

CASE 3. When goods in company are ſold by me for ready money:

RULE, Dr. caſh, Cr. goods in company: Then Dr. partner's accompt in company, Cr. his accompt current for his ſhare due from me to him.

CASE 4. When goods in company are ſold by me on truſt;

RULE, Dr. the buyer, Cr. goods in company: Then Dr. partner's accompt in company, &c. for his ſhare due to him as above at caſe 3.

CASE 5. When goods in company are ſold to myſelf;

RULE, Dr. thoſe goods for proper accompt, Cr. goods in company: Then Dr. partner's accompt in company, &c. as above.

CASE 6. When goods in company are ſold to my partner;

RULE, Dr. his accompt current, Cr. goods in company: Then Dr. partner's accompt in company, &c. as above.

CASE 7. When goods in company are ſold by me for part ready money and part time;

RULE, Dr cash for what is received, Dr. the buyer for what remains due, Cr. goods in company by ſundry accompts for the full value: Then Dr. partner's accompt in company, Cr. his accompt current for his ſhare due to him.

CASE 8. When goods of my own are brought into company;

RULE, Dr. goods in company, Cr goods proper: Then Dr. partner's accompt current, Cr. his accompt in company for his particular ſhare due to me.

CASE 9. When the whole is furniſhed by me;

RULE, Dr. goods in company, Cr. the ſelling man, if bought on time; Cr. caſh if bought for preſent money: Then Dr. partner's accompt current, &c. as above at caſe 8.

CASE 10. When goods of my partner's are brought into company;

RULE, Dr. goods in company, Cr. partner's accompt in company: Then Dr. partner's accompt current, &c. as at caſe 8.

CASE 11. When the whole is furniſhed by my partner;

RULE, Dr. goods in company, Cr. partner's accompt current for the whole: Then Dr, partner's accompt current, &c. as at caſe 8.

CASE 12. When goods in company are all ſold; if there be gain;

RULE, Dr. the goods in company to ſundry accompts, Cr. partner's accompt in company for his ſhare, profit and loſs for my ſhare.

CASE 13. When goods in company are all ſold; if there be loſs,

RULE, Dr. partner's accompt in company for his ſhare of the loſs, Dr. profit and loſs for my ſhare, Cr. the goods in company by ſundry accompts.

Note, After the entries belonging to theſe two laſt caſes are made, the accompt of *goods in company* and *partner's accompt in company*, will ſtand balanced.

CASE 14. When goods in company are ſent over-ſea to be ſold, I paying the charges;

RULE, Dr. voyage to ——— in company to ſundry accompts for the whole charge, Cr. goods in company for their value, Cr. caſh for the charges: Then Dr. partner's accompt current, Cr. his accompt in company for his ſhare of coſt and charges due to me.

CASE

CASE 15. When I buy goods for company accompt with ready money, and ſhip them off, paying the charges of ſhipping;

RULE, Dr. voyage in company for the whole charge, Cr. caſh for the ſame ſum: Then Dr. partner's accompt current, &c. as at caſe 14.

CASE 16. When I buy goods for company accompt, on truſt, and ſhip them off before they are entered in my Ledger, paying the charges of ſhipping;

RULE, Dr. voyage to———in company to ſundry accompts for the whole charge, Cr. the ſeller for the prime coſt, Cr. caſh for the after charges: Then Dr. partner's accompt current, &c. as at caſe 14.

CASE 17. When I receive goods from our factor for company accompt, in return for goods ſent and ſold, with charges paid by me at the receipt thereof;

RULE, Dr. goods received in company to ſundry accompts for their prime coſt and charges, Cr. factor at——— for company accompt for the coſt and charges, as *per* invoice, Cr. caſh for the charges paid at their receipt: Then Dr. partner's accompt current, &c. as at caſe 14.

CASE 18. When goods are ſent from my factor in one place to our factor in another place;

RULE, Dr. voyage to——— conſigned to our factor, Cr. my factor at———his accompt current: Then Dr. partner's accompt current, &c. as at caſe 14.

CASE 19. When goods are ſent by our factor in one place to my factor in another place, in return for goods ſold for company accompt;

RULE, Dr. voyage to———conſigned to———my factor at ———Cr. our factor at———: Then Dr. partner's accompt in company, Cr. his accompt current for his ſhare of the ſaid goods.

CASE 20. When goods are ſold by our factor as *per* his advice;

RULE, Dr. factor at———his accompt current, Cr. voyage to ———in company.

CASE 21. When I receive advice that my factor hath afterwards made ſome abatements;

RULE, Dr. voyage to———Cr. factor at——— his accompt current.

CASE 22. When I receive money of my partner for his ſhare of goods formerly bought;

RULE, Dr. caſh, Cr. partner's accompt current.

CASE 23. When money is remitted to me, by our factor for goods ſold;

RULE, Dr. caſh, Cr. factor at———his accompt current: Then Dr. partner's accompt in company, Cr. his accompt current for his ſhare due to him.

CASE 24. When money is remitted to me, by our factor for goods ſold, but payable at uſance;

RULE, Dr. the accepting perſon, Cr. factor at——his accompt current: Then Dr. partner's accompt in company, &c. as at caſe 23.

CASE 25. When I pay money on ſight of my partner's bill;

RULE, Dr. partner's accompt current, Cr. caſh.

CASE 26 When I give to my creditor an aſſignment on my partner, for his ſhare of the goods in company;

RULE, Dr. the receiver of the aſſignment, *i. e.* my creditor, Cr. partner's accompt current.

2. *My partner keeping the accompt, and having the diſpoſal of the goods.*

CASE I.

WHEN I pay my ſhare in money;

RULE, Dr. partner's accompt in company, Cr. caſh.

CASE 2. When I furniſh my ſhare in goods;

RULE, Dr. partner's accompt in company, Cr. the goods.

CASE 3. When I furniſh both my own and my partner's ſhare;

RULE, Dr. partner's accompt in company for my ſhare, Dr. partner's accompt current for his ſhare, Cr. the goods by ſundry accompts.

CASE 4. When my partner furniſhes my ſhare, as well as his own;

RULE, Dr. partner's accompt in company, Cr. partner's accompt current for my ſhare only.

CASE 5. When my partner ſends me an accompt of the ſale of goods in company;

RULE, Dr. partner's accompt current, Cr. his accompt in company for my ſhare of the neat proceed.

CASE 6. If there be gain on the above ſale;

RULE, Dr. partner's accompt in company, Cr. profit and loſs.

CASE 7. If there be loſs;

RULE, Dr. profit and loſs, Cr. partner's accompt in company.

CASE 8. When my partner draws on me for my ſhare of goods in company, and I pay the ſame preſently;

RULE, Dr. partner's accompt current, Cr caſh.

CASE 9. When my partner draws on me, as above, at uſance;

RULE, Dr. partner's accompt current, Cr. the demanding perſon.

The general balance of the whole Ledger, in order to transfer the ſame into new books.

OBSERVATION I.

ALL accompts are balanced either by *balance*, or by Profit and Loſs; except accompts in company, which are balanced by the goods in partnerſhip for my partner's gain, or to thoſe goods for his loſs thereon.

OASERV. 2 When accompts with perſons are made even by receipts or payments, thoſe accompts ſtand balanced already.

OBSERV. 3. When accompts remain unfiniſhed;

CASE 1. If it be of money remaining in hand;

RULE, Dr. accompt of balance, Cr. caſh.

CASE 2. If it be of perſons, who are debtors;

RULE, Dr. accompt of balance, Cr. their accompts.

CASE 3. If it be of perſons, who are creditors;

RULE, Dr. their accompts, Cr. balance.

CASE 4. If it be of goods, which are ſold, and there be gain;

RULE, Dr. thoſe goods, Cr. profit and loſs.

CASE 5. If it be of goods, which are ſold, and there be loſs;

RULE, Dr. profit and loſs, Cr. thoſe goods

CASE 6. If it be of goods, part ſold, and part unſold;

RULE, For what is ſold, Dr. and Cr. as above: For what is unſold, Dr. balance, Cr. the goods at the prime coſt.

Note, The ſame when all the goods remain unſold.

OBSERV. 4. The accompts of inſurance, charges of merchandiſe, intereſt, houſe-expences, &c. are all balanced by profit and loſs.

OBSERV. 5. The accompts of profit and loſs, and balance, are balanced by ſtock, they being made Drs. *to* or Crs. *by* ſtock, as their particular balances direct.

OBSERV. 6. The accompt of ſtock is balanced by the ſeveral balances of profit and loſs, and balance; being brought thereto.

OBSERV. 7. The accompt of balance in the old books, will be the inventory in the new ones."

End of the BOOK-KEEPING.

PART

PART III.

Precedents, or forms of Writings uſed by Merchants.

SECT. I.

ENGLISH PRECEDENTS.

1. *The form of an Engliſh* BOND, *to which may be put any* CONDITION.

KNOW all men by theſe preſents, That I *(Benjamin Bidfair* of Stepney, in the county of Middleſex, Rope-maker) am holden and firmly bound to *William Wellmeant*, of Sutton Colefield, in the county of Warwick, Eſq;) in one hundred pounds, lawful money of Great-Britain; to be paid to the ſaid *(William Wellmeant)* his certain attorney, executors, or adminiſtrators: For the payment whereof, I bind myſelf, my heirs, executors and adminiſtrators, firmly by theſe preſents: Sealed with my ſeal. Dated this (firſt day of September) in the (fourteenth) year of the reign of our ſovereign lord (GEORGE THE THIRD) by the grace of God, of Great-Britain, France and Ireland (KING) defender of the faith, and ſo forth. And in the year of our LORD (One thouſand ſeven hundred and ſeventy-ſeven.)

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2. A CONDITION for Money lent.

THE condition of this obligation is ſuch, that if the above bounden *(Benjamin Bidfair)* his heirs, executors, or adminiſtrators, do well and truly pay, or cauſe to be paid, unto the above-mentioned *(William Wellmeant)* his executors, adminiſtrators, or aſſigns, the full ſum of (fifty pounds) of good and lawful money of Great-Britain, on the (firſt day of December) next enſuing the date hereof, with lawful intereſt for the ſame; then this obligation to be void, or elſe to remain in full force.

Sealed and delivered, (being firſt legally ſtamped in preſence of *A. B. C. D.)* *Benjamin Bidfair*, (L. S.)

When

When a Bond is given in conſideration of the value received, the obligation is always to be made for double the value in the condition.

The dates of legal inſtruments, ſums of money, and the number of all other things ſpecified in them, muſt be written in words at length, never in figures, for fear of alterations. The inſtruments themſelves, as well as all proceedings at law, muſt be written wholly in Engliſh according to a late act of parliament.

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3. *A* CONDITION *to ſtand to the* AWARD *of arbitrators.*

June 22. 1777.

THE condition of this obligation is ſuch, that if the above bounden *(Benjamin Bidfair* of London, merchant) his heirs, executors, and adminiſtrators, and every of them, do and ſhall in all things well and truly ſtand to, obey, abide by, perform, fulfil, and keep the award, order, arbitrement, final end and determination of *(Anthony Aimwell,* and *Michael Makepeace* of London, merchants) arbitrators indifferently named, elected, and choſen, as well on the part and behalf of the above bounden, *(Benjamin Bidfair)* as of the above named *(William Wellmeant)* to arbitrate, award, order, judge, and determine of, and concerning all manner of action and actions, cauſe and cauſes of actions, ſuits, bills, bonds, ſpecialties, judgments, executions, extents, accompts, debts, dues, ſum and ſums of money, controverſies, treſpaſſes, damages, and demands whatſoever, at any time or times heretofore had, made, moved, brought, commenced, ſued, proſecuted, done, ſuffered, committed, or depending by or between the ſaid parties, ſo as the award may be made and given up in writing, under their hands and ſeals, ready to be delivered to the ſaid parties, on or before the (firſt of February next enſuing the date hereof.) But if the ſaid arbitrators do not make ſuch their award of and concerning the premiſes, by the time aforeſaid, that then, if the ſaid *(Benjamin Bidfair)* his heirs, executors, and adminiſtrators, for his and their parts and behalf, do in all things, well and truly ſtand to, obey, abide by, perform, fulfil, and keep the award, order, arbitrement, umpirage, final end, and determination of *(Ferdinando Finiſhall* of London, Eſq;) umpire indifferently choſen between the ſaid parties, to end the ſaid matter and differences, ſo as the ſaid umpire do make his award or umpirage of and concerning the premiſes, and deliver the ſame in writing, under his hand and ſeal, to the ſaid parties, on or before the (ſixth day of February) next enſuing the date aboveſaid: Then this obligation to be void, or elſe to remain in full force.

Sealed and delivered, (being legally ſtamped) in the preſence of, *A. B. C. D.*

Benjamin Bidfair, (L. S.)

Both

Both parties are, in this caſe, to be mutually bound to each other; and if there be no umpire admitted, the latter part of the condition, beginning (But if the ſaid arbitrators) *is to be omitted.*

A clauſe ought to be added to this inſtrument, and ſigned by each party, directing ſuch award to be entered and given as a plea, in either of the king's courts in Weſtminſter, in order to corroborate and render it final to them.

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4. An Arbitration-bond.

IT is an ordinary and laudable practice among merchants, that they do not, upon every ſmall difference that happens, go to law, but refer the matter in queſtion to the deciſion of two judicious men; or, in caſe theſe two cannot agree, they ſometimes chuſe a third, called an *umpire*. The contending parties oblige themſelves to ſtand to their determination, by ſigning and delivering to each other mutual bonds. The final ſentence or deciſion muſt be delivered in writing; which, if given by the arbitrators, is called in England an *award*, and in Scotland, a *decreet-arbitral;* and if given by the umpire, it gets the name of an *umpirage*. The bond of arbitration, as uſed in England, is commonly of the following form.

KNOW ALL MEN, by theſe preſents, That I A. B. ——— am holden and firmly obliged to C. D. ——— in ——— pounds of good and lawful money of Great-Britain, to be paid to the ſaid C. D. his attorney, executors, or adminiſtrators. To which very payment, well and faithfully to be made, I oblige myſelf, my heirs, executors, and adminiſtrators, firmly by theſe preſents, ſealed with my ſeal, dated at ———, on the ——— day of ———, in the ——— year of the reign of our Sovereign Lord King George ———, and in the year of our Lord God ———.

The condition of this obligation is ſuch, that if the above bounden A. B. ———, his heirs, executors, and adminiſtrators, for his and their parts and behalfs, do in all things well and truly ſtand to, obey, abide by, perform, fulfil, and keep the award, order, arbitrement, final end and determination of G. and F. ——— arbitrators indifferently named, elected, and choſen, as well on the part and behalf of the above bounden A. B. ———, as of the above-named C. D. to arbitrate, award, order, judge, and determine, of and concerning all, and all manner of action and actions, cauſe and cauſes of actions, ſuits, bills, bonds, ſpecialties, judgments, executions, extents, quarrels, controverſies, treſpaſſes, damages, and demands whatſoever, at any time or times heretofore had, made, moved, brought, commenced, ſued, proſecuted, done, ſuffered, committed, or depending, by or between the ſaid parties

parties, ſo as the ſaid award be made, and given up in writing, under their hands and ſeals, ready to be delivered to the ſaid parties on or before the ——— next enſuing the date above mentioned: but if the ſaid arbitrators do not make ſuch their award, of and concerning the premiſes, by the time aforeſaid; that then, if the ſaid A. B ———, his heirs, executors, and adminiſtrators, for his and their part and behalf, do in all things well and truly ſtand to, obey, abide by, perform, fulfil, and keep the award, order, arbitrement, umpirage, final end and determination of R. M. umpire indifferently choſen between the ſaid parties, of and concerning the premiſes, ſo as the ſaid umpire do make his award or umpirage of and concerning the premiſes, and deliver the ſame in writing under his hand and ſeal to the ſaid parties, on or before the ——— next enſuing the date above ſaid, then this obligation to be void; or elſe to remain in full force and virtue. A. B.

Signed, ſealed, and delivered in preſence of
C. H.
L. T.

Note, If there be no umpire, the latter part muſt be omitted, viz. from *but if the ſaid arbitrators*, &c.

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5. The FORM of an UMPIRAGE of Award.

TO all people to whom this preſent writing ſhall come: * (I *Ferdinando Finiſhall*, of London Eſq;) Umpire indifferently choſen between (*Benjamin Bidfair*, and *William Wellmeant* of London, merchants) ſend greeting. Now know ye, that I the ſaid *Ferdinando Finiſhall*, having deliberately heard, conſidered, and underſtood the griefs, allegations, and proofs of both the ſaid parties; and being willing, as much as in me lieth, to ſet the ſaid parties at unity and good accord, do by theſe preſents, arbitrate, award, order, deem, decree, and judge, that the ſaid (*Benjamin Bidfair*) his executors, adminiſtrators, or aſſigns, do and ſhall well and truly pay, or cauſe to be paid, unto the ſaid (*William Wellmeant*) his executors, adminiſtrators, or aſſigns, the full ſum of (one hundred pounds) of lawful money of Great-Britain, on the (ſeventeenth day of March) next, enſuing the date of theſe preſents: and that upon payment thereof, the ſaid (*Benjamin Bidfair*, and *William Wellmeant*) ſhall, at their own proper coſts and charges, ſeal, ſubſcribe, and, as their ſeveral acts and deeds, deliver each to the other a general releaſe in writing, of all matters, actions, ſuits, cauſes of actions, bonds, bills, covenants, controverſies, and demands whatſoever: from the beginning of the world, to the (firſt day of May laſt paſt) and in the (fourteenth) year of

 our

* *If there be two arbitrators, the words run thus, "We A. and B. arbitrators, indifferently choſen by C. and D.* &c.

our Sovereign Lord (GEORGE, King of Great Britain, &c.) In witneſs whereof, I have hereunto ſet my hand nd ſea the (fourth day of February, in the year of our LORD, one thouſand ſeven hundred and ſeventy-ſeven.)

Sealed and delivered (being firſt duly ſtamped) in preſence of *E. F.* *G. H.*

Ferdinando Finiſhall, (L. S.)

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6. A LETTER of LICENCE to a DEBTOR.

TO all people to whom this preſent writing ſhall come: We whoſe names are hereunder ſubſcribed, and ſeals affixed, creditors of *(A. B.* of London, merchant) ſend greeting. Whereas, the ſaid *(A. B.)* on the day of the date of theſe preſents, is indebted to us ſeverally, in divers conſiderable ſums of money; which at preſent he is not able to ſatisfy unto us, without reſpite and time to be given him for the payment thereof: Know ye therefore, that we the ſaid creditors, for divers good cauſes and conſiderations us thereunto moving, have given and granted, and by theſe preſents do give and grant unto the ſaid *(A. B.)* our ſure and ſafe conduct and free licence, that he the ſaid *(A. B.)* ſhall, and may ſafely come and go, and reſort unto us, and every one of us, his ſaid creditors, to compound and take order with us, and every one of us, for all and every of our ſaid debts, and may go about any other buſineſs, to any other perſon or perſons whatſoever, without any trouble, ſuit, arreſt, attachment, or other moleſtation to be offered and done unto him, the ſaid *(A. B.)* his wares, goods, moneys, or other merchandiſes whatſoever, by us or any of us, or by the heirs, executors, adminiſtrators, partners, or aſſigns of us, or any of us, or by our, or any of our means and procurement, to be ſought or procured to be done, from the day of the date hereof, unto the full end and term of (one whole year) next enſuing. And we the ſaid creditors, whoſe names are here under-written do hereby covenant and grant, and every one of us for his own part, his executors and adminiſtrators, covenanteth and granteth, to and with the ſaid *(A. B.)* that if any trouble, wrong, damage, or injury, ſhall be done unto him the ſaid *(A. B.)* either in his body, goods, or chattels, or any of them, within the ſaid term of (one year) next coming after the date hereof, by us, or any of us, his ſaid creditors, or any other perſon or perſons, by or through the procurement, conſent, or knowledge of us, or any of us, contrary to the true intent and meaning of this our preſent writing of ſafe

ſafe conduct; that then the ſaid *(A. B.)* by virtue of theſe preſents ſhall be diſcharged and acquitted for ever, towards and againſt him and them, of us, his and their heirs, executors, adminiſtrators, partners, or aſſigns, and every one of them, by whom, and by whoſe means, he ſhall be arreſted, troubled and attached, or damnified, of all manner of actions, ſuits, quarrels, debts, and demands, either in law or equity, from the beginning of the world, to the day of the date hereof: In witneſs whereof, we have hereunto ſet our hands and ſeals, the (twenty ſecond day of June, in the year of our LORD one thouſand ſeven hundred and ſeventy-ſeven.)

Sealed and delivered, (being firſt duly ſtamped) in preſence of
R. S.
W. X.

A. B. (L. S.)	*R. D.* (L. S.)
C. D. (L. S.)	*P. Q.* (L. S.)
E. F. (L. S.)	*E. L.* (L. S.)
G. H. (L. S.)	*M. T.* (L. S.)
J. K. (L. S.)	*Y. Z.* (L. S.)
S. H. (L. S.)	*W. N.* (L. S.)
L. W. (L. S.)	*R. Y.* (L. S.)

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7. A LETTER of LICENCE and COMPOSITION.

TO ALL PEOPLE ———, we whoſe names are here underſcribed, and ſeals affixed, creditors of A. B. ——— merchant, ſend greeting. Whereas the ſaid A. B. is indebted unto us his ſaid creditors in ſeveral ſums of money, and is through loſſes and misfortunes, perfectly unable to pay and ſatisfy us our whole debts, *We do therefore* hereby declare, that every one of us who ſhall ſubſcribe and ſeal theſe preſents, ſhall and will, and hereby do, give free leave and licence for the ſaid A. B. together with his goods, to go, come, and abide amongſt us, for the ſpace of ſix months, to be computed from the date hereof, without our, or any of our let, trouble, ſuit, arreſt, or other diſturbance whatſoever. *And further,* That if the ſaid A. B. his executors, adminiſtrators, or aſſigns, ſhall within the ſpace of ſix months aforeſaid, pay, or cauſe to be paid unto us, for and in reſpect of the ſeveral debts owing unto us, ten ſhillings in the pound; that then we the ſaid creditors, and every one of us, ſhall and will accept

the ſame in full of the debt and debts to us ſeverally owing; and ſhall and will give unto him or them general acquittances and releaſes from us, and every of us. *In witneſs whereof*, we have hereunto ſet our hands and ſeals, dated the ———.

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8. *A general* RELEASE.

KNOW ALL MEN. by theſe preſents, That I A. B ———, have remiſed, releaſed, and for ever quitted claim, and by theſe preſents do, for me. my heirs, executors, and adminiſtrators, remiſe, releaſe, and for ever quit claim, unto C. D. ———, his heirs, executors, and adminiſtrators, all and all manner of actions, cauſe and cauſes of actions, ſuits, bills, bonds, writings, obligations, debts, dues, duties, accompts, ſum and ſums of money, judgments, executions, extents, quarrels, controverſies, treſpaſſes, damages and demands whoſoever, both in law and equity. or otherwiſe howſoever, which againſt the ſaid C. D. I ever had, now have, and which, my heirs, executors, and adminiſtrators, ſhall or may have, claim, challenge, or demand, for or by reaſon or means of any matter, cauſe, or thing, from the beginning of the world to the day of the date of theſe preſents. *In witneſs whereof*, I have hereunto put my hand and ſeal, the ——— day of ———.

A. B.

Seal d and deliver-
ed in preſence of
R. M.
S. E.

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9. A LETTER of ATTORNEY.

KNOW all Men by theſe preſents, That I (the Lady *Elizabeth Goring*, of the pariſh of Hampton, in the county of Middleſex, widow) have made, ordained, conſtituted, and appointed, and by theſe preſents do make, ordain, conſtitute, and appoint (*Edmund Wingate* of Gray's Inn, Eſq;) to be my true and lawful attorney, for me, and in my name, and for my uſe, to aſk, demand, and receive of, and from (*Henry Long*, of St. Mary-labonne, Eſq; *Peter Randal*, of Pancras, gent. *Philip Ryley*, of Wandſworth, Dyer; and *Jeremiah Holcomb*, of Iſlington, innholder) their executors, adminiſtrators, or aſſigns, as well all ſuch ſum and ſums of money as now are, or which ſhall, or may, at any time

time hereafter become due and owing to me, for or on account of rent, for the reſpective tenures, by them, or ſome of them now occupied and poſſeſſed; and upon non-payment thereof, the ſaid perſon or perſons, his or their executors and adminiſtrators, for me, and in my name, to ſue, arreſt, impriſon, implead, and proſecute for the ſame, and upon ſuch ſuit to proceed to judgment and execution; and thereupon, the ſaid perſon or perſons, their or either of their executors and adminiſtrators, in priſon to hold and keep, until payment thereof be made, with all coſts and damages ſuſtained, and to be ſuſtained, by reaſon of the detaining of the ſame. And upon payment thereof, the ſaid perſon or perſons, their and either of their executors and adminiſtrators, forth of priſon to diſcharge, and acquittances for me in my name to make, ſeal, and deliver; and alſo to perform, purſue, and execute, all and every ſuch other lawful and reaſonable acts, means, and things whatever, both for recovering and diſcharging the ſame, as ſhall be needful to be done: Giving, and by theſe preſents, granting to my ſaid Attorney, not only my full and abſolute power in the premiſes himſelf, but alſo power to ſubſtitute and appoint one or more attorney or attorneys in his ſtead, to act, execute, do, and perform all lawful acts, deeds, or things, with relation to the premiſes, and ratifying and holding firm all and whatſoever my ſaid attorney, or his ſubſtitutes beforeſaid, ſhall lawfully do, or cauſe to be done, in or about the premiſes, by virtue of theſe preſents. In witneſs whereof, I have hereunto ſet my hand and ſeal (the fourth day of June, in the year of our Lord one thouſand ſeven hundred and ſeventy-ſeven.)

Sealed and delivered, (being firſt legally ſtamped) in preſence of

Eliz. Goring, (L. S.)

Y. Z.
P. D.

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10. A BILL of DEBT.

KNOW ALL MEN, by theſe preſents, That I A. B. of —— do owe and am indebted unto C. D. of —— the ſum of —— lawful money of Great Britain; which ſaid ſum I promiſe to pay unto the ſaid C. D. his executors, adminiſtrators, or aſſigns, on or before

before the —— day of —— next enſuing the date hereof. Witneſs my hand and ſeal this —— day of ——.

A. B.

Sealed and delivered
in preſence of
G. R.
S. T.

II. A BILL of SALE.

KNOW all perſons whom it may concern: That I *(Lazarus Lackcaſh*, of Norwich, in the county of Norfolk, Goldſmith,) for and in conſideration of the ſum of (fifty pounds) of lawful money of Great Britain, to me in hand paid by *(Dives Doubledun* of London, Eſq;) the receipt whereof I do hereby acknowledge, have bargained, ſold, and delivered; and by theſe preſents, according to the due form of law, do bargain, ſell, and deliver unto the ſaid *(Dives Doubledun)* four carats of oriental pearl: nine grains of brait diamonds; one ſilver tea-pot, weight twenty ounces; one ſilver ſalver, weight ten ounces; two ſets of ſilver caſters, weight thirty ounces; and ten carnelion rings, ſealed up, by conſent, with my ſeal,) To have and to hold the ſaid bargained premiſes, unto the ſaid *(Dives Doubledun)* his executors, adminiſtrators, and aſſigns, for ever. And I the ſaid *(Lazarus Lackcaſh)* for myſelf, my executors, and adminiſtrators, the ſaid bargained premiſes, unto the ſaid *(Dives Doubledun)* his executors, adminiſtrators, and aſſigns, againſt all perſons, ſhall and will warrant, and for ever defend by theſe preſents: Provided nevertheleſs*, that if I the ſaid *(Lazarus Lackcaſh)* my executors, adminiſtrators, and aſſigns, or any of us, do and ſhall well and truly pay, or cauſe to be paid unto the ſaid (*Dives Doubledun*) his executors, adminiſtrators, or aſſigns, the ſum of (fifty-one pounds and five ſhillings, as principal and intereſt) lawful money of Great Britain, on the firſt of November next enſuing the date hereof) for redemption of the bargained premiſes; then this preſent bill of ſale ſhall be void and of none effect: But if default be made in the payment of the ſaid (fifty-one pounds and five ſhillings) in part, or in the whole, contrary to the manner and form before ſaid; that then it ſhall remain and be in full force and virtue. In witneſs whereof, I have hereunto ſet my hand and ſeal, the twenty-ſecond day of June,

*If the bargained premiſes be redeemable by a limited time, a proviſo of this nature is added.

June, in the year of our Lord, one thouſand ſeven hundred and ſeventy-ſeven.)

Sealed and delivered, (being firſt legally ſtamped) in preſence of *P. D.* *R. M.*

Lazarus Lackcaſh, (L. S.)

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12. A WARRANT of ATTORNEY to confeſs Judgment.

To (John Carpenter, John Davis, *and* John Hodges, *Gent.*) *Attorneys of his Majeſty's Court of* (*Common-Pleas, at Weſtminſter*) *jointly and ſeverally, or to any other Attorney of the ſame Court.*

THESE are to deſire, and authoriſe you, the attorneys above-named, any of you, or any other attorney of the court of (common-pleas) aforeſaid, to appear for me (*John Morris*, of Yatton, in the county of Somerſet, Yeoman, in the ſaid court of common-pleas, the next trinity-term, or any ſubſequent term) and then and there to receive a declaration for me, in an action of (debt for two hundred pounds, beſides coſts of ſuit) at the ſuit of (*Robert Crayghton*, of the liberty of St. Andrew in Wells, in the county aforeſaid, doctor of divinity.) And thereupon to confeſs the ſame action, or elſe to ſuffer a judgment, by *He ſaith nothing*, or *I am not informed*, or otherwiſe to paſs againſt me in the ſame action, and to be thereupon forthwith entered up againſt me of record (in the ſame court of common-pleas.) And for your ſo doing, this ſhall be to you, or any of you, or to any other attorney as aforeſaid, your, his, their, or any of their ſufficient warrant: In witneſs whereof, I have ſet my hand and ſeal, this (twenty-ſecond day of June, one thouſand ſeven hundred and ſeventy-ſeven.)

Sealed and delivered, (being firſt legally ſtamped) in preſence of *G S.* *R. M.*

John Morris, (L. S.)

Note, This inſtrument is of great force and validity, and wards off that opprobrium of our conſtitution, the expences and delays of law-proceedings; eſpecially if a clauſe be inſerted, promiſing no writ of errour ſhall be brought or proſecuted upon it in bar.

13. A conditional BILL of CREDIT.

WHEREAS R. S. of——— merchant, hath undertaken to pay for me A. B. of London merchant, for my uſe, unto G. H. of Rotterdam, the ſum of five hundred pounds lawful Britiſh money, on———next; *now theſe preſents witneſs*, That I the ſaid A. B. do hereby, for myſelf, my executors and adminiſtrators, promiſe and agree to and with the ſaid R. S. that, on producing an acquittance under the hand of the ſaid G. H. for the ſaid five hundred pounds, or any other writing ſhewing the certainty of the payment of the ſaid money, and on delivery thereof to me, that then I, my executors or adminiſtrators, ſhall and will, immediately upon receipt of the ſame, pay, or cauſe to be paid, unto the ſaid R. S. his executors or aſſigns, the ſum of five hundred and five pounds lawful money of Great Britain; the ſaid five pounds as a gratification for his trouble in this affair. And for the ſure payment thereof, I do hereby bind myſelf, my executors, and adminiſtrators, by theſe preſents. *In witneſs whereof*, &c.

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14. A CHARTER-PARTY OF AFFREIGHTMENT.

THIS charter-party, indented, made, and agreed, upon the —— of the month of ——, *anno Dom* ——, and in the —— year of the reign of our Sovereign ——, between A. B. of——— mariner, maſter and owner of the good ſhip or veſſel called the ———, now riding at anchor in the river———, of the burden of one hundred tons, or thereabouts, of the one part: and C. D. of the city of———merchant, of the other part, *witneſſeth*, That the ſaid A. B. for the conſideration herein after-mentioned, hath granted, and to freight let, and by theſe preſents doth grant, and let to freight, unto the ſaid C. D. his executors, adminiſtrators, and aſſigns, the whole tunnage of the hold, ſtern-ſheets, and half-deck of the ſaid ſhip or veſſel called.——, from the port of —— to ——, in a voyage to be made with the ſaid ſhip, in manner hereafter mentioned: *That is to ſay*, to ſail with the firſt fair wind and weather that ſhall happen after———, or before——— next, from the port of———, with the goods and merchandiſe of the ſaid C. D. his factors or aſſigns, on board, to———aforeſaid; there to be diſcharged of her ſaid cargo, within twenty-one days next after her arrival there, for the end of her ſaid voyage. *In conſideration whereof*, the ſaid C. D. for himſelf, his executors and adminiſtrators, doth covenant, promiſe, and grant, to and with the

the ſaid A. B. his executors, adminiſtrators, and aſſigns, by theſe preſents, that he the ſaid C. D. his executors, adminiſtrators, factors, or aſſigns, ſhall and will well and truly pay, or cauſe to be paid, unto the ſaid A. B. his executors, adminiſtrators, or aſſigns, for the freight of the ſaid ſhip and goods, the ſum of ——— Sterling, within twenty-one days after the ſaid ſhip's arrival, and goods diſcharged at the port of ——— aforeſaid, for the end of the ſaid voyage; and alſo ſhall and will pay for demurrage (if any ſhall be by default of him the ſaid C. D. his factors or aſſigns) the ſum of ——— per day, daily and every day, as the ſame ſhall become due. And the ſaid A. B. for himſelf, his executors and adminiſtrators, doth covenant, promiſe, and grant, to and with the ſaid C. D. his executors, adminiſtrators, and aſſigns, by theſe preſents, that the ſhip or veſſel ſhall be ready, at the ſaid port of ———, to take in goods, by the ſaid ———, or before ——— next coming. And within ten days next after the ſaid ſhip or veſſel ſhall arrive at the ſaid port, in manner and according to the times aforeſaid, he the ſaid C. D. doth promiſe to have his goods ready to put on board the ſaid ſhip, to proceed on the ſaid voyage. And the ſaid A B. for himſelf, his executors and adminiſtrators, doth further covenant, promiſe, and grant, to and with the ſaid C. D. his executors, adminiſtrators, and aſſigns, that the ſaid ſhip or veſſel now is, and at all times, during the ſaid voyage, ſhall be, to the beſt endeavour of the ſaid A. B. his executors and adminiſtrators, and at his and their own proper coſts and charges, in all things made and kept ſtiff, ſtaunch, ſtrong, well apparelled, furniſhed, and provided, as well with men and mariners ſufficient and able to ſail, guide, and govern the ſaid ſhip, as with all manner of rigging, boats, tackle, furniture, proviſion, and appurtenances, fitting and neceſſary for the ſaid men and mariners, and for the ſaid ſhip, during the voyage aforeſaid. *In witneſs whereof*, the parties aforeſaid to theſe charter-parties indented, have interchangeably put their hands and ſeals, the day and year above written.

A. B.

Sealed and delivered in the preſence of

E. F.
G. H.

15. A Bond for Goods ſold by Inch of Candle.

KNOW ALL MEN, by theſe preſents, that I ———, on the date hereof, do confeſs and acknowledge to have bought of ———, at a public ſale at the candle, lot ———, containing, as by the printed tickets appears, ———, to be accepted and taken at the price aforeſaid, in the like quality and condition as now they are in and ſhall ariſe, good or bad, without exception, and without any abatement, for or in reſpect of any fault or defect whatſoever. And I the ſaid ———, for myſelf, my executors and aſſigns, do covenant, promiſe, and agree, to and with the ſaid ——, his executors or aſſigns, by theſe preſents, That I the ſaid ———, my executors, adminiſtrators, or aſſigns, ſhall and will well and truly pay, or cauſe to be paid, unto the ſaid ———, his executors, adminiſtrators, or aſſigns, the full and entire ſum of ——— lawful money of Great Britain, which the ſaid goods ſhall amount unto, at the rate and price agreed upon aforeſaid, at or in the now dwelling-houſe or ſhop of ———, before I ſhall receive the ſaid goods, or any part or parcel thereof, into my cuſtody or poſſeſſion), in the manner and form following, ———; and then to receive and take away the ſaid goods out of the houſe or warehouſe wherein now they are, at my own proper coſt and charges, without any delay, pretence or pretences to the contrary whatſoever. And for the true performance of all and ſingular the premiſes, and due payment, in manner and form aforeſaid, I do bind myſelf, my heirs, executors, adminiſtrators, and aſſigns, unto the ſaid ———, his executors and aſſigns, in the ſum of ——— lawful money of Great Britain, firmly, by theſe preſents, to be paid unto the ſaid ———, his executors or aſſigns, immediately after any default made, contrary to the true intent and meaning of theſe preſents. And furthermore, upon any ſuch default made, I do, by theſe preſents, fully and abſolutely, for myſelf, my heirs, executors, adminiſtrators and aſſigns, remiſe, releaſe, and for ever quit claim, and diſcharge, unto the ſaid ———, his executors and aſſigns, all and ſingular my right, title, intereſt, benefit, claim, and demand whatſoever, of, in and unto the ſaid goods, or any part or parcel thereof, which I ever had, and which I, my heirs, executors, adminiſtrators or aſſigns, ſhall or may have, claim, challenge, or demand, for or by reaſon, occaſion, force, or virtue, by or in reſpect of this preſent ſale or agreement. *In witneſs whereof*, I have hereunto ſet my hand and ſeal. Dated in ———, in the year of the reign of our Sovereign Lord George the Third

Third, King of Great Britain, ———, and in the year of our Lord God ———.

A. B.

Signed, ſealed, and delivered in preſence of

F. G.
T. R.

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16. The FORM of a WILL.

In the name of GOD. Amen.

I (the Lady *Arabella Earnly)* of Bromley, in the county of Kent, Widow) being of perfect mind and memory, make this my laſt will and teſtament: Firſt, I deſire to be privately buried (in the pariſh church of St. Ann, in the liberty of Weſtminſter, and that the charges of my funeral may not exceed forty pounds.) My temporal eſtate I bequeath and diſpoſe of in the following manner: Imprimis, (To my daughter *Alice*, I bequeath the ſum of two thouſand five hundred pounds, my Indian trunk, a table-clock, and my picture done by *Dahl.*) Item, (To my niece and god-daughter, *Mary Peters*, I bequeath my diamond-ring, my pearl-pendants ſet with brilliants, and a hundred pounds to buy her mourning. Item, (To Mr. *William Vernon*, my couſin, I bequeath the ſum of one guinea to buy him a ring. Item, (To the poor of the pariſh of Bromley aforeſaid, I bequeath the ſum of ten pounds to be paid to the miniſter and churchwardens, within ten days after my funeral, to be by them diſtributed as they ſee good, among their ſaid poor.) The reſidue and remainder of my eſtate, lands, tenements, hereditaments, with my goods, chattels, plate and jewels, India bonds, arrears of rent, with all other properties of what kind ſoever, to me appertaining, I give, deviſe, and bequeath (to my ſon *Thomas)* whom I conſtitute and appoint (the whole and ſole) executor of this my laſt will and teſtament; and I do hereby utterly revoke, diſallow, and diſannul all former bequeſts, wills and legacies by me heretofore in any wiſe left or made, declaring, ratifying, and confirming this, and no other, to be my laſt will and teſtament: In witneſs whereof, I have hereunto ſet my hand and ſeal, this (twenty-ſecond day of June,

in the year of our Lord one thouſand ſeven hundred andſeventy-ſeven.

Signed, ſealed, publiſhed, and declared, by the within named Teſtatrix (the Lady *Arabella Earnly*) to be her laſt will and teſtament, in preſence of us, who ſubſcribed our names in preſence of the ſaid Teſtatrix and of each other.

Arabella Earnly, L. S.

C. D.
E. F.
I. H.

Three witneſſes are requiſite to a will if it concern a real eſtate; which witneſſes are to ſee each other ſign it, as well as the teſtator. If the eſtate be perſonal only, two may do. The law exempts wills from being made on ſtamped paper.

SECT. II.

SCOTTISH PRECEDENTS.

1. A CHARTER-PARTY.

AT ——, the — day of ——, it is agreed, betwixt A. merchant in —— on the one part, and B. maſter and owner of the good ſhip called ———, on the other part, in manner following; *that is to ſay*, the ſaid B. binds and obliges him, with the firſt occaſion of a fair wind, to ſail with his ſaid ſhip, and loading aboard thereof, to ———, or any other port in ———that he ſhall find moſt convenient for making ſale of the loading; and to lie there —— days for unloading and reloading another cargo, and therewith to return with the firſt conveniency to the harbour of—, and therein to lie and remain the ſpace of —— days for unloading: and for that effect the ſaid B. binds and obliges himſelf to have his ſaid ſhip well-dreſſed, water-tight under and above, well provided with a competent number of ſkilful and able mariners, and victuals conform, with cables, tows, anchors, ſails, maſts, float-boats, and all other materials requiſite and neceſſary for the ſailing of his ſaid ſhip, and

plying

plying the ſaid voyage; and that he ſhall do his honeſt duty and diligence in ſailing his ſaid ſhip, to and from the ports above written, and in receiving and delivering the reſpective loadings above ſpecified; and that he ſhall ſuffer no part thereof to be damnified or embezzled, the danger of the ſeas excepted. *For the which cauſes*, the ſaid A. binds and obliges him, his heirs and executors, thankfully to content and pay to the ſaid B. the ſum of —— of freight for the voyage above written, within —— days after the arrival of the ſaid ſhip; together with average, primage, towage, &c. and all other duties, according to the cuſtom of the ſea; together alſo with ——— of demurrage daily and each day the ſaid maſter, ſhip, and company, ſhall be longer detained at any of the ports above written, than the lie-days above mentioned, through the ſaid A. his default. And both parties bind ——— to perform the premiſes *binc inde* to other, under the penalty of ——— to be paid by the party failing to the party obſerving, or willing to obſerve, by and at our performance. Conſenting to the regiſtration of theſe preſents in the books of council and ſeſſion, admiral court-books, or any others competent, to have the ſtrength of a decreet ———. And conſtitute ——— their procurators. *In witneſs whereof*, both parties have ſubſcribed theſe preſents, written on ſtamped paper, by ———, at ———, the —— day of —— years, before theſe witneſſes, G. H. ——— and R. S. ———.

G. H. *witneſs*. B.
R. S. *witneſs*. A.

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2. A Short Submission.

A Submiſſion is the ſame thing in Scotland that an arbitration-bond is in England, and runs thus:

WE A. and B. by theſe preſents, ſubmit and refer to C. and D. all controverſies, claims, and competition of right, between us, of and concerning ———, and oblige us and our ſucceſſors to abide by and obtemper their decreet-arbitral, to be thereanent pronounced, betwixt and the ——— day of ———, next to come, under the penalty of ———, beſides performance.

Another.

I A. B. do hereby refer and ſubmit to B. and C. what ſhall be given by me to D. upon conſideration of ———. And I bind and oblige myſelf to pay the ſame to the ſaid D. accordingly, with penalty ———. And I conſent to the regiſtration hereof, and of the determination, in the books of council and ſeſſion.

3. A

3. A Decreet-arbitral.

A Decreet-arbitral is in Scotland what an award or umpirage is in England, and runs thus;

WE ——— judges-arbitrators under-written, with the ſpecial advice and conſent of Z. oddſman and overſman after-mentioned———. For as much as A. B. and C. D. on the one and other parts, having ſubmitted themſelves to us the ſaid———, and in caſe of variance betwixt us, to Z. oddſman and overſman, equally and indifferently choſen by both the ſaid parties, concerning all actions, queſtions, and debates, ſtanding betwixt the ſaid parties, and which either of them lays or may lay to the other's charge, for whatſoever compaction or occaſion bygone, preceding the date of the ſaid ſubmiſſion, conform to their claim given in by either of them thereupon; and the ſaid parties having referred the particulars above and under-written, to the determination of us the ſaid judges-arbitrators, with power to us to decide therein, and in caſe of variance betwixt us, to the ſaid Z. oddſman and overſman above mentioned, as at more length is contained in the ſaid ſubmiſſion, written on the back hereof: and we the ſaid judges-arbitrators having accepted the ſaid matters debateable upon us, and we being therewith well and ripely adviſed; and for our better help and ſupply therein, having taken the advice and reſolution of the ſaid oddſman and overſman within and above-named; after large hearing, conference, and communication with both the ſaid parties thereanent, and conſideration of the reſpective claims given in to us by the ſaid parties, we, with the ſpecial advice and conſent of the ſaid Z. oddſman and overſman above named, all in one voice, after mature deliberation, having God and a good conſcience before our eyes, have decerned and ordained, and by theſe preſents decern and ordain, in manner following. (*Here the decerniture is inſerted, and then follows.*) And this is our decreet and ſentence, which to all and ſundry whom it effeirs we manifeſt and make known, and conſent that the ſame, with the ſubmiſſion within written, be inſert and regiſtrate, &c.

An Assignment to an Accompt.

I A. B. for divers onerous cauſes and conſiderations moving me, by theſe preſents, make and conſtitute C. D.——— my ceſſioner and aſſignee, in and to what money and other profits ſhall be found due to me, upon the reſult of a count and reckoning betwixt me and R. S. ———, ſurrogating and ſubſtituting the ſaid C. D.

C. D. in my full right and place of the premiſes, for now and ever; with power to uplift, diſcharge, and purſue for the ſame, tranſact thereanent, and to do, uſe, and exerciſe every thing I might have done myſelf before the granting of this aſſignation: which aſſignation I bind and oblige me, my heirs and executors, to warrant to the ſaid C. D. his heirs and executors, from all facts and deeds done and to be done by me, or my foreſaids, prejudicial hereunto. Conſenting to the regiſtration hereof——. *In witneſs whereof*,——.

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5. A Bond for Borrowed Money.

I A. B. oblige me and my ſucceſſors, to pay, at Martinmas next to A. B. his heirs or aſſignees, the ſum of one thouſand pounds Scots of borrowed money, under the penalty of one hundred pounds Scots; together with the ordinary annual rent of the ſaid principal ſum, from the date hereof, during non-payment. Conſenting to the regiſtration hereof in the books of council and ſeſſion, or any others competent, to have the ſtrength of an act and decreet, that letters of horning on ſix days charge, and other execution neceſſary, may paſs hereupon. And I conſtitute——— my procurators. *In witneſs whereof*, I have written and ſubſcribed theſe preſents, on ſtamped paper, at———, this——— day of———, before theſe witneſſes———.

A. B.

N. B. The witneſſes muſt be deſigned, and the place of their reſidence mentioned.

SECT. III.

BRITISH PRECEDENTS;

Or, Precedents of Merchants' Writings uſed in the ſame form both in Scotland and England.

1. A Bill of Loading.

SHIPPED, in good order, by A. B. merchant, in and upon the ſhip called———, whereof C. D. is maſter, now riding at anchor in———, and bound for——in Holland, ten bales of broad cloth, marked and numbered as in the margin; and No 1. are to be delivered in the like good order and condition, at 2. &c. the port of——— aforeſaid, (the danger of the ſeas excepted,) unto E. F. merchant there, or his aſſigns; he or they paying

paying for the ſaid goods the ſum of ——— freight, with primage and average accuſtomed. *In witneſs whereof*, the maſter, or purſer of the ſaid ſhip hath affirmed to three Bills of Lading, all of this tenor and date; one of which bills being accompliſhed, the other two to ſtand void. And ſo God ſend the good ſhip to her deſigned port in ſafety. *Amen*. Dated at ———

2. A Policy of Insurance.

KNOW all men, by theſe preſents, That A. B. of——— merchants as well in his own name, as for and in the name and names of all and every other perſon and perſons whom the ſame may or ſhall concern, doth make aſſurance, and hereby cauſe himſelf and them, and every of them, to be aſſured, loſt or not loſt, at and from the port of ——— to ——— in the kingdom of ———, and at and from thence back to ——— upon the body, tackle, apparel, ordnance, munition, artillery, boat, and other furniture, of and in the good ſhip called———, burden———, or thereabouts, whereof E. F. is maſter; beginning the adventure upon the ſaid ſhip from and immediately following the day of the date hereof, and ſo to continue and endure, until the ſaid ſhip, with all her tackle, apparel, &c. ſhall be arrived back to———, as aforeſaid and during her abode and ſtay there; and further, until the ſaid ſhip, with all her tackle, apparel, &c. ſhall be arrived back at ———, and hath there moored at anchor twenty-four hours. And it ſhall be lawful for the ſaid ſhip, in this voyage, to proceed and ſail to, and touch and ſtay at any ports and places whatſoever, eſpecially at———, without prejudice to this aſſurance. The ſaid ſhip———, for ſo much as concerns the aſſureds, is and ſhall be rated and valued at—— Sterl. without further account to be given by the aſſureds for the ſame. *And touching* the adventures and perils which we the aſſurers are content to bear, and do take upon us in this voyage, they are of the ſeas, men of war, fire, enemies, pirates, rovers, thieves, jetzons, letters of mart and countermart, ſurpriſals, and taking at ſea, arreſts, reſtraints, and detainments, of all kings, princes, and people, of what nation, condition, or quality ſoever, barratry of the maſter and mariners, and of other perils, loſſes, and misfortunes, that have or ſhall come to the hurt, detriment, or damage of the ſaid ſhip ———, or any part thereof. And in caſe of any misfortune, it ſhall be lawful for the aſſureds, their factors, ſervants, and aſſigns, to ſue, labour, and travel for, in and about the defence, ſafeguard, and recovery of the ſaid ſhip, or any part thereof, without prejudice to this aſſurance; to the charges whereof we the aſſurers will contribute, each of us according to the rate and quantity of his ſum herein aſſured. *And ſo* we

the

the aſſurers are contented, and do hereby promiſe and bind ourſelves, (each for his own part) our heirs, executors, goods, and chattels, to the aſſureds, their executors, adminiſtrators, and aſſigns, for the true performance of the premiſes; confeſſing ourſelves paid the conſideration due to us for this aſſurance, by ——, at and after the rate of —— per cent. And in caſe of loſs, the aſſureds to abate —— per cent. *In witneſs whereof*, we the aſſurers have ſubſcribed our names, and ſums aſſured.

I C. D. am content with this aſſurance for one hundred pounds. *Witneſs my hand*, &c. } L. 100

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3. An AFFIDAVIT that a SHIP is Caſt away.

A. B. of ——— mariner, lately hired in the good ſhip ——— in a voyage to ———, maketh oath, That on ——— laſt paſt near the Cape of ———, the ſaid ſhip, proceeding on her ſaid voyage, was caſt away in a ſtorm; whereby the ſaid ſhip, the cargo, and all the goods on board, periſhed, and were entirely loſt; and that only the maſter and ——— of the men were ſaved, the reſt of the ſhip's crew being drowned. *And this deponent* farther depones, that neither he this deponent, nor any other, to his uſe, hath received, nor doth expect to receive, any benefit of or by the goods ſo loſt, nor any part thereof, by any way or mean whatſoever.

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4. A LETTER of CREDIT.

Mr A. B;

SIR,

I Have yours of the 12th inſtant, to which you ſhall have an anſwer per next poſt. The deſign of this is, to deſire you to furniſh and pay to the bearer hereof, Mr T. R. to the value of four hundred crowns, at one or more times, as he ſhall have occaſion, and as he ſhall require the ſame of you; for which take his receipt or bill of exchange on me: and this my letter of credit, with mine of advice by poſt, ſhall be your ſufficient warrant. I am,

Sir, your humble ſervant,

C. D.

To Mr. A. B. Merchant in Paris.

Note, Some letters of credit are called *general*, as being directed to all merchants or others to whom the bearer ſhall come; but ſuch letters can be given only by perſons or companies of very public credit.

SECT. IV.

Fifteen Practical Queſtions relative to Receipts, Promiſſory Notes, and Bills of Exchange, neceſſary to be well underſtood by all Perſons in Buſineſs.

1. Robert Handaſyde pays to William Wilſon on the 14th December 1776, twenty pounds, in full: Quære the receipt that Wilſon ſhould give Handaſyde?
2. William Wilſon lends R. Handaſyde twenty pounds and ten ſhillings, on the 1ſt June 1777, which Handaſyde promiſes to pay Wilſon in two months: Quære the form of the promiſſory note?
3. Robert Readhead payed to me on the 1ſt June 1777, eight pounds, ten ſhillings and ſixpence, in part of a debt: I demand a copy of the receipt that ſhould be given to Readhead?
4. I lent William Wilſon on the 1ſt May 1777, ten pounds: Wilſon then gave me a promiſſory note for the money, to pay on demand: Quære a copy of it?
5. R. Readhead pays on the 2d June 1777, eight pounds, ten ſhillings and ſixpence, by a bill on Mr. John Jones, merchant in London, being part of a debt: What receipt ſhould I give Readhead?
6. William Wilſon lends me, on the 3d June 1777, fifty pounds, which I agree to repay in one month: Quære the form of the promiſſory note?
7. John Jones of London owes William Wilſon of Edinburgh fifty pounds, which Wilſon draws for at one month's uſance, on the 2d June 1777, payable to me: Quære a copy of the bill of Exchange?
8. Edward Truſty, my ſervant, receives on the 3d June 1777, forty pounds from Mr. William Turnbull, in full for an accompt delivered: What receipt ought he to give?
9. John Yeomans of London owes William Wilſon of Edinburgh fifty pounds, which Wilſon draws for on the 4th June 1777, payable to Lancelot Reed, or order, at one month: I demand a copy of the bill of exchange, and of the receipt that Reed ſhould give Wilſon, who received the above on accompt?

10. William

10. William Wilſon receives from Robert Reed, on the 6th June 1777, ten pounds, on accompt, for the uſe of his mother:— I demand a copy of the receipt?

11. On the 22d June 1777, William Needful receives of Edward Fullpay Eſq; fifty pounds in caſh, and alſo an aſſignment on William Banker, due eight days hence for the ſame ſum: I demand a copy of the receipt that Needful ſhould give Fullpay, who received it for half a year's annuity due on the firſt inſtant?

12. The aſſignment, or bill of exchange in the laſt queſtion, was drawn by John Teller of London, at one month's uſance, on Mr. William Banker of Edinburgh, payable to Mr. Edward Trader, or order, who indorſed it to William Needful: I demand, therefore, a copy of this draught as it came into William Needful's hand, and alſo of the receipt he gave to Mr. Banker, who paid him the value when due?

13. On the 1ſt of June 1777, Joſeph Dealer ſold to William Retail, goods to the amount of 50l 19s 6d.-on the 17th July *ditto*, to the amount of 31l 17s 7½. On the 31ſt of the ſame month, to the value of 7l 13s 3d. On the 19th of Auguſt the bill of parcels came to 46l 1s 10½ and on the 18th of October, again, to the amount of 18l 17s 5d.

———William Retail paid to the ſaid Dealer, on the 3d Auguſt, 19 guineas and a half: On the 2d of September, 7l 10s 6d. and on the 23d of the ſame month 40 l.

——Firſt, I demand a true ſtate of the accompt current between them: 2dly, as William Retail gave Mr. Dealer on the 24th November 1777, a bill on Edward Paine, Eſq; banker in London, for 50l and the reſt of the balance in caſh; I next demand a copy of the receipt that Dealer ſhould give to Retail, ſuppoſing it paid on producing the accompt?

14. On the 22d June 1777, Edmund Lovemoney receives of William Honeſty, by the hands of Thomas Carrier, eight pounds, in full for an accompt delivered: I demand a copy of the receipt that ſhould be given?

15. On the 1ſt June 1777, Thomas Tenant pays to James Steward, factor to the Right Honourable Lord Noble, two hundred pounds, for half a year's rent, due at Martinmas laſt: *Quære*, a copy of the receipt that Steward ſhould give Tenant?

FINIS.

ERRATA.

1. In the ARITHMETIC.

Page	Line	
		For pages 84, 83, 84, 85, 86 read 84, 85, 86, 87, 88.
108	3	for l. 525 read 5250l.
—	12	for *will be* read *rate, by*
—	13	for *rate, by* read *will be*
14	8	for *half-yearly* read *quarterly*

2. In the BOOK-KEEPING by SINGLE ENTRY.

WASTE-BOOK.

Page	Line	
14	27	for 2s. 6d. read 1s.
43	25	for *dittto* read *ditto*
—	29	for 43 (in the margin) read 12
45	1	for 15th read 16th
—	16	for *ceſh* read *caſh*
46	32	for *Edwavd* read *Edward*
47	1	for 2d read 27th
—	32	for *the Directors* read *Meſſrs. Paywell and Co.*

N. B. The firſt *erratum* runs through the whole impreſſion; the reſt will be found *only* in a few copies.

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